

The Western Desert code

An Australian cryptogrammar

Also in Pacific Linguistics

Barry J. Blake, 1998, *Wathawurrung and the Colac language of southern Victoria*.

Heather Bowe and Stephen Morey, 1999, *The Yorta Yorta (Bangerang) language of the Murray Goulburn including Yabula Yabula*.

Lois Carrington and Geraldine Triffitt, 1999, *Ozbib: A linguistic bibliography of Aboriginal Australia and the Torres Strait Islands*.

L.A. Hercus, 1999, *A grammar of the Wirangu language from the west coast of South Australia*.

Rachel Nordlinger, 1998, *A grammar of Wambaya, Northern Territory (Australia)*.

Pacific Linguistics is a publisher specialising in grammars and linguistic descriptions, dictionaries and other materials on languages of the Pacific, the Philippines, Indonesia, Southeast and South Asia, and Australia.

Pacific Linguistics, established in 1963 through an initial grant from the Hunter Douglas Fund, is associated with the Research School of Pacific and Asian Studies at The Australian National University. The Editorial Board of Pacific Linguistics is made up of the academic staff of the School's Department of Linguistics. The authors and editors of Pacific Linguistics publications are drawn from a wide range of institutions around the world. Publications are refereed by scholars with relevant expertise who are usually not members of the editorial board.

The 470 publications before Publication 501 were numbered in four series, A, B, C and D, but the series were merged from the beginning of the year 2000 because the rationale for them had gradually disappeared.

FOUNDING EDITOR: Stephen A. Wurm

EDITORIAL BOARD: Malcolm D. Ross and Darrell T. Tryon (Managing Editors),
Wayan Arka, John Bowden, Andrew Pawley

The Western Desert code

An Australian cryptogrammar

David Rose



Pacific Linguistics

Research School of Pacific and Asian Studies
The Australian National University
Canberra

Published by Pacific Linguistics
Research School of Pacific and Asian Studies
The Australian National University
Canberra ACT 0200
Australia

Copyright © The author

First published 2001

National Library of Australia Cataloguing-in-Publication entry:
Rose, David.
The Western Desert code: an Australian cryptogrammar.

Bibliography.
ISBN 0 85883 437 5.

1. Pitjantjatjara language - Semantics. 2. Pitjantjatjara language - Grammar.
I. Australian National University. Research School of Pacific and Asian Studies. Pacific Linguistics. II. Title.

499.150143

Copyedited and typeset by Margaret Forster
Map work by The Cartography Unit, RSPAS, ANU
Printed and bound by Union Offset Printers, Canberra

Table of contents

<i>Acknowledgements</i>	xvi
0.1 Prologue Genesis of the description	1
0.1 Aim and organisation of the description	1
0.2 Phylogenesis: a history	3
0.3 Ontogenesis: an education	4
0.4 Logogenesis: an approach to description	6
0.4.1 Socio-semantic code	6
0.4.2 Method of analysis	7
0.4.3 Mode of description	8
0.5 Semogenesis: descriptive findings	10
0.5.1 Phonological lexicogrammatical and discourse rank scales	11
0.5.2 Textual resources	12
0.5.3 Interpersonal resources	14
0.5.4 Experiential resources	16
0.5.5 Logical resources	20
1 Culture and language	22
1.1 Social organisation: variations in tenor	22
1.1.1 Kinship and autonomy	22
1.1.2 The Law	26
1.1.3 Equality and authority	28
1.1.4 Kinship terms	30
1.1.5 Tenor variations in kin relations	31
1.1.6 Realisation of tenor in exchanges	32
1.2 Material production: variations in field	35
1.2.1 Field variation	38
1.3 Symbolic capital: variations in dialect and mode	49
1.3.1 Diversity of semiotic resources	49
1.3.2 Dialect variation	50
1.3.3 Register variation	54
1.3.4 Mode variation	56
1.4 Mapping the culture: variations in genre and code	59
1.4.1 Genre variation	59

1.4.2	Codal variation	68
1.4.3	Phylogenesis	79
2	Theory and description	85
2.1	Overview of the model	86
2.2	Paradigmatic and syntagmatic organisation	88
2.2.1	The system network	88
2.2.2	Proportionalities and paradigms	89
2.2.3	Delicacy and simultaneity	90
2.2.4	Probability	92
2.2.5	Beside the system: realisation, function structures and instantiation	93
2.3	Stratification	95
2.3.1	Overview of linguistic strata	95
2.3.2	Redundancy and decoupling between strata	97
2.3.3	Stratification and phylogenesis	97
2.4	Metafunctional diversity: interpersonal, ideational and textual modes of meaning	98
2.4.1	Interpersonal metafunction	99
2.4.2	Ideational metafunction	102
2.4.3	Textual metafunction	105
2.5	Phonological ranks	107
2.5.1	Overview of the phonological rank scale	107
2.5.2	Sonority wave	109
2.5.3	Stress wave	112
2.5.4	Tonicity wave	113
2.6	Lexicogrammatical ranks	114
2.6.1	Overview of lexicogrammatical ranks	114
2.6.2	Metafunctions and lexicogrammatical ranks	115
2.6.3	Morpheme rank	115
2.6.4	Word rank	119
2.6.5	Group rank	124
2.6.6	Metafunctions and clause rank systems	133
2.7	Discourse semantic ranks	137
2.7.1	Meaning and discourse	137
2.7.2	Overview of discourse semantic systems	138
2.7.3	Relations between systems in discourse semantics, lexicogrammar, phonology and social contexts	139
2.8	Presentation of text examples	141
3	Textual resources	146
3.1	Introduction	146
3.2	IDENTIFICATION	147

3.2.1	Overview of reference resources	148
3.2.2	Text examples	153
3.2.3	Reference chains	164
3.2.4	Identification and mode variation	166
3.2.5	Phylogenesis of reference resources	167
3.3	THEME	168
3.3.1	Types of element functioning as Theme	171
3.3.2	THEME and IDENTIFICATION	172
3.3.3	THEME PROMINENCE	174
3.3.4	Logical Themes	182
3.3.5	Textual Themes	183
3.3.6	Interpersonal Themes	188
3.4	INFORMATION	191
3.4.1	INFORMATION distribution	193
3.4.2	INFORMATION FOCUS	199
3.5	Textual resources in Western Desert and English	206
4	Interpersonal resources	210
4.1	Introduction	210
4.1.1	Speech functions and mood	212
4.1.2	Choices in modal assessment	213
4.1.3	Text examples	214
4.2	Minor clauses	225
4.2.1	Calls	225
4.2.2	Greetings	225
4.2.3	Exclamations	226
4.3	Imperative clauses	227
4.3.1	IMPERATIVE MOOD PERSON	228
4.3.2	ORIENTATION	230
4.3.3	FORCE	231
4.3.4	OBVIOUSNESS	232
4.3.5	TIME REFERENCE	234
4.3.6	Grammatical metaphors for proposals	234
4.4	Indicative clauses	237
4.4.1	INDICATIVE MOOD PERSON	237
4.4.2	Declarative clauses	239
4.4.3	Yes-no interrogative clauses	241
4.4.4	<i>Nya</i> -interrogative clauses	242
4.4.5	PROBABILITY	247
4.4.6	ABILITY	250
4.4.7	IMMEDIACY	251
4.5	POLARITY	251

4.5.1	Negative imperative clauses	252
4.5.2	Negative indicative clauses	252
4.5.3	<i>Uwa</i> 'yes' and <i>wiya</i> 'no'	254
4.6	Mood options in bound clauses	255
4.6.1	Bound expansion clauses	256
4.6.2	Bound projection clauses	257
4.6.3	Negative polarity in bound clauses	259
4.7	MODAL ASSESSMENT	259
4.7.1	FREQUENCY	260
4.7.2	DEGREE	262
4.7.3	REALITY	262
4.7.4	CONTINUITY	264
4.7.5	Responsibility	265
4.7.6	Deference	266
4.7.7	Desire	266
4.8	VOCATION	267
4.8.1	Vocative types	267
4.8.2	Force of vocations	268
4.8.3	Non-thematic vocations	270
4.9	Interpersonal resources in Western Desert and English	270
5	Experiential resources	273
5.1	Introduction	273
5.1.1	Experiential elements	273
5.1.2	Types of figures	275
5.2	ACTION	286
5.2.1	ACTION text example	287
5.2.2	Intransitive action	290
5.2.3	Ranged non-effective action	292
5.2.4	Effective actions	296
5.3	SIGNIFICATION	300
5.3.1	Verbal SIGNIFICATION	303
5.3.2	Mental SIGNIFICATION	309
5.3.3	Summary of mental process	318
5.4	RELATION	320
5.4.1	Overview of relational clauses	320
5.4.2	Attributive relations	322
5.4.3	Identifying relations	333
5.5	CIRCUMSTANTIATION	337
5.5.1	Enhancing circumstances	340
5.5.2	Extending circumstances	348

5.5.3	Elaborating circumstances	350
5.5.4	Circumstances and non-finite processes	353
5.6	Topological perspectives on transitivity	354
5.6.1	Nuclear perspective	355
5.6.2	Comparative perspective	356
5.7	Experiential resources in Western Desert and English	358
6	Logical resources	363
6.1	Introduction	363
6.1.1	INTERDEPENDENCY TYPE, TAXIS AND RECURSION	363
6.1.2	Structural potentials	368
6.2	PROJECTION	372
6.2.1	Paratactic projection	372
6.2.2	Hypotactic projection	375
6.3	EXPANSION	378
6.3.1	Elaboration	380
6.3.2	Extension	383
6.3.3	Enhancement	386
6.3.4	Hypotaxis, modality and the semogenesis of cause	396
6.4	Cohesive (non-structural) enhancing conjunctions	398
6.4.1	Succession	398
6.4.2	Reason	399
6.4.3	Expansion of <i>palulanguru</i>	399
6.5	Complexing at other ranks	400
6.5.1	Verb complexes	400
6.5.2	Pronoun complexes	402
6.5.3	Nominal group complexes	403
6.5.4	Morpheme complexes	405
6.6	Logical resources in Western Desert and English	408
7	Conclusion	411
7.1	Introduction	411
7.2	Analysis of a Western Desert text	412
7.2.1	THEME AND INFORMATION	412
7.2.2	MOOD AND MODAL ASSESSMENT	420
7.2.3	TRANSITIVITY AND COMPLEXITY	424
7.2.4	Texture	430
7.2.5	Register, genre and ideology	430
7.3	Resources for meaning in Western Desert and English	431
Appendix 1: The Anangu Pitjantjatjara Land Rights Campaign		437
Appendix 2: Other descriptions of Western Desert dialects		446

x *Table of contents*

A.2.1	Formalist descriptive traditions	446
A.2.2	Glass and Hackett 1970	447
A.2.3	Dixon 1980	450
A.2.4	Goddard 1985	455
A.2.5	Eckert and Hudson 1988	460
A.2.6	Bowe 1990	464
A.2.7	Revisiting THEME, TONALITY and TONICITY	467
	<i>References</i>	469

Map, figures, tables and systems

Map

Map 1:	Western Desert dialect groups	52
--------	-------------------------------	----

Figures

Figure 1.1:	Kaakunatintja (Uta Uta Tjangala, n.d.)	23
Figure 1.2:	General kinship categories	25
Figure 1.3:	Western Desert men jointly constructing a ceremonial sand painting	29
Figure 1.4:	Types of Western Desert environment	36
Figure 1.5:	Sand dunes in the Great Victoria Desert (from Shephard 1995)	37
Figure 1.6:	Western Desert spearhead <i>wata</i>	43
Figure 1.7:	Indigenous culture regions in mainland Australia (from Peterson 1976)	55
Figure 1.8:	A contemporary Western Desert community meeting	63
Figure 1.9:	Western Desert ceremony (from Tonkinson 1974)	65
Figure 2.1:	System network exemplar: MOOD and POLARITY (after Matthiessen 1995)	89
Figure 2.2:	Realisation statements	94
Figure 2.3:	Structural realisations of output features in simultaneous systems	94
Figure 2.4:	Stratification of language, exemplified by text [1:1]	96
Figure 2.5:	Social exchange and cultural context	99
Figure 2.6:	Tone contour graph of exchange pair	100
Figure 2.7:	Phonology and lexicogrammar in interpersonal prosodies	101
Figure 2.8:	Prosodic amplification of interpersonal meanings	102
Figure 2.9:	Orbital structures and experiential meanings	*102
Figure 2.10:	Orbital structure with multiple participants and circumstances	104
Figure 2.11:	Serial structure and logical meaning	105
Figure 2.12:	Presentation of discursive, intersubjective, and 'natural' reality	106
Figure 2.13:	Complementarity of periodic structures	107
Figure 2.14:	Phonological rank scale	107
Figure 2.15:	Amplitude graph of text [1:1]	108

Figure 2.16:	Enlarged amplitude graph of text [1:1]	109
Figure 2.17:	Dynamic representation of the textual structure of the syllable	111
Figure 2.18:	Textual structure of syllables in Western Desert	111
Figure 2.19:	Complex rhyme in a multisyllabic word	111
Figure 2.20:	Sonority wave of the clause <i>wiya ngura nyaratja tjitji ma-ngari</i>	112
Figure 2.21:	Stress pattern of the foot	112
Figure 2.22:	Stress pattern of a multisyllabic foot	113
Figure 2.23:	Stress wave of the clause <i>wiya ngura nyaratja tjitji ma-ngari</i>	113
Figure 2.24:	Culminative pattern of the tone group	113
Figure 2.25:	Tonicity wave of the clause <i>wiya ngura nyaratja tjitji ma-ngari</i>	114
Figure 2.26:	Lexicogrammatical rank scale: classes and functions	114
Figure 2.27:	Metafunctional diversification of language in context	140
Figure 3.1:	Reference chains in text [3:5]	165
Figure 3.2:	Thematic prominence and identification in text [1:2"]	182
Figure 3.3:	Tonicity wave of text [3:5]	203
Figure 3.4:	Culminative structure of an information wave in Western Desert narrative	205
Figure 3.5:	Information wave structure of text [3:5]	205
Figure 4.1:	Kin relations in text [4:3]	218
Figure 5.1:	General orbital structure potential of process clauses	275
Figure 5.2:	General orbital structure potential of relation clauses	275
Figure 5.3:	Nuclear of actor+process (=domain)	293
Figure 5.4:	Nuclear of actor+(process=behaviour)	294
Figure 5.5:	Extending relation between actor+process and source	295
Figure 5.6:	Transitive potential of effective action	297
Figure 5.7:	External agency in English: recursive potential	297
Figure 5.8:	Orbital structure potential of signifying processes	302
Figure 5.9:	Orbital structure potential of projecting clauses	303
Figure 5.10:	Topology of signifying process	319
Figure 5.11:	Nuclear perspective on transitivity elements	356
Figure 5.12:	Comparative perspective on types	357
Figure 6.1:	Orbital and serial structures realising experiential and logical meanings	363
Figure 6.2:	Recursive structure potentials	368
Figure 6.3:	Nesting of projection in dialogue	370
Figure 6.4:	Nesting of expansion in projection	371
Figure 7.1:	Reference chains in text [7:1]	416
Figure 7.2:	Information waves of text [7:1]	419

Figure A.2.1:	Intermediate liquid before a stop	448
Figure A.2.2:	Added second syllables	448
Figure A.2.3:	Theme and information structure of exchange pair (14-15)	466

Tables

Table 1.1:	System of kinship terms	31
Table 1.2:	Tenor variables in kin relations (after Tonkinson 1978:48)	32
Table 1.3:	Some general fields in traditional desert life	40
Table 1.4:	Types of things: grasses	41
Table 1.5:	Terms for men's work <i>tjatu</i>	42
Table 1.6:	Options in TENSE and ASPECT	44
Table 1.7:	Temporal duration of mood, tense and aspect options	45
Table 1.8:	Shared vocabulary and language relationships (after Wurm 1971)	53
Table 1.9:	Framework for generic potential in Western Desert	60
Table 2.1:	Paradigm of configuration type by mood type	90
Table 2.2:	Metafunctions and types of structure (after Martin 1996a)	99
Table 2.3:	Resources for amplification at clause and group rank	101
Table 2.4:	Obstruent and continuant consonant potential in Western Desert	109
Table 2.5:	Approximant consonant and vocalic potential in Western Desert	110
Table 2.6:	Metafunction/Rank matrix (synopses of systems)	116
Table 2.7:	Forms of verb endings varying with verb class	117
Table 2.8:	Options in nominal inflection	118
Table 2.9:	Additional options for common nominals in nominal inflection	119
Table 2.10:	Word classes and functions	119
Table 2.11:	Options in tense and aspect	120
Table 2.12:	Simultaneous options in aspect and medium reference	121
Table 2.13:	Directional prefixes	121
Table 2.14:	Pronouns realising options in person and number in imperative clauses	122
Table 2.15:	Pronouns realising options in person and number in indicative clauses	122
Table 2.16:	Clitic options are available for neutral and genitive pronouns	122
Table 2.17:	Transcategorisation of word classes and functions	123-124
Table 2.18:	Some Western Desert epithets	128
Table 2.19:	Intensifiers	128
Table 2.20:	Numeratives	128
Table 3.1:	Active pronouns realising options in imperative and indicative clauses	150
Table 3.2:	Clitic forms for neutral and genitive pronouns	151

Table 3.3:	Demonstrative reference options	152
Table 3.4:	Textual themes	184
Table 3.5:	Modal adjuncts functioning as theme	189
Table 3.6:	Thematic and culminative elements of information groups in [3:5]	204
Table 3.7:	Comparison of textual resources in Western Desert and English	207
Table 4.1:	Primary speech functions in Western Desert	213
Table 4.2:	Semantic choices realising status and contact in text [4:1]	216
Table 4.3:	Selections in imperative mood person	228
Table 4.4:	Comparison of interpersonal resources in Western Desert and English	271
Table 5.1:	Participant functions by figure types	276
Table 5.2:	Functions of action processes in text [1.4"]	289
Table 5.3:	Reaction processes	316
Table 5.4:	Examples of options for attributive clauses	322
Table 5.5:	Options for circumstances	338
Table 5.6:	Absolute and relative locations	342
Table 5.7:	Rest and motion	343
Table 5.8:	Adverbs of distance	346
Table 5.9:	Adverbs of positional quality	352
Table 5.10:	Circumstantial and non-finite verbal inflections	353
Table 5.11:	Comparison of experiential resources in Western Desert and English	359, 361
Table 6.1:	Mode shift: language as action to language as reflection	397
Table 6.2:	Tenor shift: obligation to inclination	397
Table 6.3:	Field shift: intention to expectation	397
Table 6.4:	Circumstantial suffixes (examples of expansion)	407
Table 6.5:	Non-finite verbal suffixes (examples of expansion)	407
Table 6.6:	Comparison of logical resources in Western Desert and English	408–410
Table 7.1:	Themes in text [7:1]	417
Table 7.2:	Themes, news and logogenesis	418
Table 7.3:	Summary of mood choices in text [7:1]	423
Table 7.4:	Projections and hypotactic expansions in text [7:1]	428–429
Table 7.5:	Comparison of contextual variation in Western Desert and English	434–435
Table A.2.1:	Non-finite verbal suffixes in Yankunytjatjara	457

Systems

System 3.1:	General options in identification	148
System 3.2:	General options in pronominal reference type	149
System 3.3:	Options in conjunctive reference	149
System 3.4:	General options in theme	171
System 3.5:	Information distribution and focus in the clause	192
System 4.1:	General options in interpersonal resources at clause rank	212
System 4.2:	Options for imperative clauses	227
System 4.3:	Options in indicative clauses	238
System 4.4:	Mood options in bound clauses	256
System 4.5:	Resources in modal assessment	261
System 5.1:	General options in transitivity	286
System 5.2:	Action systems	287
System 5.3:	Options in verbal clauses	304
System 5.4:	Options for mental process	310
System 5.5:	General options for relational clauses	321
System 5.6:	Options in circumstantiation	339
System 6.1:	General options in complexity	367
System 6.2:	Complexing potential of projection	372
System 6.3:	Options in expansion type	379
System 6.4:	Elaborating clause complexes	380
System 6.5:	Extending clause complexes	383
System 6.6:	Enhancing clause complexes	387

Acknowledgments

I am deeply indebted to Nganyintja and Charlie Ilyatjari of Angatja homeland community, and to the many Pitjantjatjara and Yankunytjatjara people who have helped me as a friend and kin by teaching me their language and culture over the years. I especially wish to thank the people who have contributed texts quoted in the description, including Nganyintja, Ilyatjari, Sandy Mutju, Henry Tjamumalyi, Tjulkiwa, Eileen Stevens, Yaritji Roberts, Ivan Baker, Jimmy Baker, Stanley Douglas, Mantatjara Wilson, Sammy Lyons and Cecily Lyons. Some of these people were deceased at the time of writing while others may not be alive when you are reading this book. For the sake of their relatives' feelings, may I ask that their names not be mentioned in public, unless the speaker is sure they are alive. I would also like to thank Lee Brady, traditional landowner and leader of Amata community for opening many doors for me, as well as Jim Martin for his encouragement and insights, Kristin Davidse, Michael Halliday, Christian Matthiessen, Michael Walsh and Colin Yallop for their comments on my thesis, Margaret Forster for her care and patience in editing it for publication, and Miranda, James, Andrew and Michael Rose for their love, tolerance and support.

Prologue

Genesis of the description

0.1 Aim and organisation of the description

The aim of this book is an introduction to ways of meaning in the language of the Anangu people of Australia's Western Desert, with particular focus on the dialect Pitjantjatjara. The Western Desert language is spoken by about six thousand members of a widely dispersed hunting-gathering culture, in an arc of arid lands from the Great Sandy Desert of northern Western Australia (WA), to the Great Victoria Desert of South Australia (SA). Pitjantjatjara is spoken by groups whose ancestral lands include the ranges and sand plains around the meeting place of the WA, SA and the Northern Territory (NT) borders (see Map 1). The two major objectives for the volume are to survey the grammatico-semantic resources by which Western Desert speakers construe the world and enact their culture, and to map the relationships between these linguistic resources and the cultural contexts in which they have evolved. To meet these objectives the theoretical and descriptive tools of systemic functional linguistics (SFL) are employed throughout the survey, to explore the language as a resource for making meaning in its diverse social contexts. This represents a significant departure from the mainstream of descriptive linguistics in Australia, as it is the first time that an indigenous Australian language has been described comprehensively using a systemic functional approach.

The Western Desert peoples were traditionally nomadic hunter-gatherers of very large territories with low population density. Each of the Western Desert dialects has two or three hundred to a thousand speakers over an area spanning a few hundred kilometres. Neighbouring dialects are usually separated by particularly waterless tracts of country that could only be traversed on foot in good seasons, but they are mutually intelligible, differences being mainly phonetic and morphological, with a small percentage of lexical and grammatical variation, although these differences become more marked over greater distances (Miller 1971, Hansen 1984). The Western Desert forms a coherent social and linguistic whole, with continuous religious and marital relationships across the region, and extending into neighbouring language groups such as the Warlpiri of central NT (Cane 1990). For these reasons a semantically motivated description of the grammatical resources in one dialect may be taken as representative of the region as a whole (see further discussion in §1.4.2 below).

The description is intended for a readership of linguists familiar with functional as well as with formal descriptive traditions, and for scholars in other social science fields. Its starting point is with a discussion in Chapter 1 of the contexts of the culture realised by the language, including its modes of social organisation, material production and semiotic reproduction.

Linguistic realisations of each of these contextual dimensions are exemplified with text extracts that display some pertinent grammatical syndromes. Chapter 2 then locates the description in relation to aspects of systemic functional theory that inform it, presented in a fashion intended to be relevant for a general audience as well as for functional linguists. The chapter begins with an outline of the principles of linguistic organisation employed in the SFL tradition, exemplified with Western Desert texts from the following perspectives:

- i) functional diversity as a meaning making resource;
- ii) stratification as phonology, lexicogrammar and discourse;
- iii) syntagmatic organisation as types of structure in rank hierarchies;
- iv) paradigmatic organisation as systems of meaning potentials;
- v) instantiation of systemic options as text in context.

Terms used in the survey of Western Desert are discussed in Chapter 2 within synopses of its language features by rank and stratum, beginning with phonological systems, followed by lexicogrammatical, discourse and then contextual systems.

Chapters 3, 4, 5 and 6 outline the grammatical resources of the language from a metafunctional perspective, as regions of meaning potential: of textual, interpersonal, experiential and logical types of meanings respectively. Each section within these chapters begins with example text analyses that illustrate the role of each system of resources in the social construction of discourse. The text analyses are followed by a formal presentation of the grammatical region under consideration as a system network, and then by exemplification and explanation of each option in the system. Chapter 3 begins with an exposition of resources in various texts for referring to people and things, a familiar set of textual resources that is realised in the grammar but functions at the level of discourse. This forms a basis for discussing other resources for organising texts as hierarchies of messages and waves of information. Chapter 4 presents resources for enacting speakers' relationships, in the context of dialogues between various types of kin relations. Chapters 5 and 6 outline the Western Desert theory of experience encoded in the grammatical regions of transitivity and complexity, a model of reality that is immanent in the sets of options in the language for construing experience as sequences of figures. The description concludes in Chapter 7 with an example analysis of a Western Desert text from each of these metafunctional perspectives. This text is an historical account of the Pitjantjatjara land rights struggle that clearly exemplifies each layer of analysis of the language and its social context, linking the grammar to discourse, and then to the register, culture and ideology realised by the text.

My purpose for undertaking this description was not simply to document the features of the Western Desert language for the benefit of the academy, but to provide a comprehensive account of its resources for meaning that can be systematically related to functional accounts of these resources in spoken and written English (e.g. Halliday 1994a, Martin 1992, Matthiessen 1995), which is the language of education and business in Anangu communities today. It is my hope that this will help to inform language pedagogy in indigenous education, as well as greater understanding of relationships between the cultures. To this end, comparisons between functional resources of Western Desert and English are made throughout the survey where relevant, and each chapter concludes with a brief comparative overview of resources in each language.

In the sections that follow, the changing contexts in which the description itself has unfolded are presented from three perspectives on change: of recent events in the history of

Western Desert culture, of my own background as a participant and student of the language and culture, and of the unfolding of the survey, outlining the approach and the organisation of the text. The discussion of the approach is followed by synopses of the major descriptive findings of the survey.

0.2 Phylogenesis: a history

The following brief stories, I believe, illustrate the significance for our understanding of culture in general, of the ways in which the Western Desert culture is enacted and construed as language, and how they compare with the language of description, English. The stories concern the last two Anangu families living as hunter-gatherers to walk out of the Western Desert wilderness in 1985. Twenty-five years earlier, these people had been left behind when all their immediate relatives had been located by patrols from state welfare departments and transported to settlements on the desert fringes. The last two families emerged from their home estates a thousand kilometres apart, one family were speakers of the Pintupi dialect from the spinifex grass sand plains of the Gibson Desert to the north, and the other were Wangkatja speakers from the heath clad dunes of the Great Victoria Desert. Nevertheless they were members of the same linguistic and cultural community that still stretches across central Australia from the Indian to the Southern Ocean coast.

Before the removal, each of these families was surrounded by kin relations of blood or marriage for hundreds of kilometres beyond their home estates, with whom they camped, hunted, worshipped and initiated and betrothed their young people over the courses of the desert seasons. When their kin were taken, they knew something of what had happened to them from stories of white men that had been circulating for years before, but they were afraid to venture alone beyond the country they knew and which supported their needs in safety and security. They chose instead to stay put, while the rest of Western Desert society moved into the missions and state welfare settlements and came to rely on the Europeans' supplies of flour, tea, sugar and Christian evangelism. They were found again when their kin were beginning to return to their homelands to live, after a generation or more of dislocation, this time with water bores, four-wheel drives, stores and social security. These two families had been the final handful of indigenous people in Australia still living solely off the resources of their traditional economy, and amongst the last in the world to come under the compass of modern state bureaucracies and the money economy.

At the time, the short-wave radio channel used by Anangu to communicate between distant communities was filled with the news of the lost families. The stories provoked much discussion of the events and the nature of the colonial moment that older Anangu had all lived through. Such discussions often revolved around the changes they had experienced in the space of a generation, and the lifestyle and knowledge of country and traditions that they had lost. For many of us living in the Western Desert homelands at the time, these events intensified our sensibilities to the nature of our cultures and the times we lived in. Anangu saw them as both connecting them to, and sharpening their sense of separation from, a past that could never be returned to. They were connected by their ties of kinship to the last families, their own *walytja* 'kin', and by their personal histories, since the same transition had been experienced by themselves, or their parents or grandparents. This transition severed them from a life they saw as constituted wholly on sacred principles, lived seamlessly within *the Law*, as indigenous Australians now call their religious system. At that moment they had entered a new life as modern Australians, whose identity and sociality are continually under

construction out of fragments of our own and others' pasts. Traditional Law has remained a major part of Anangu sociality and personal identity, but it must now compete with a growing set of powerful influences against it.

One story told at the time was that one of the old men of these families had asked his sister, years before, to show the welfare patrols where to find them, but that she had forgotten the location he told her, leaving the family stranded in the desert. When he first saw his sister at the settlement he was brought to, he threw his spear at her, narrowly missing her, and ran off again into the wilderness for another month. The old man has now passed away. Some of his children have already become fringe dwellers with alcohol problems in frontier mining towns. Like them, all the Western Desert peoples today live in settled communities, to which they moved in waves from the late 1930s to 1960s, for reasons ranging from employment as pastoral workers, to a severe drought in the 1940s, state coercion during the British atom bomb and rocket tests of the 1950s and 1960s, as well as the desire to be close to relatives, a steady food supply, and the promise of education for their children that the missionaries and welfare agents offered.

Although the traditional hunter-gatherer means of production of the culture has been thoroughly disrupted, and social changes and problems are accumulating as colonisation progresses, the traditional system of social organisation remains resilient, framing both social processes within communities and political responses to colonisation. The most successful of these to date have included the winning of freehold title over large areas of traditional lands, the movement to return to their traditional homeland areas to live, and the expansion of traditional religious festivals, to bring Anangu together from communities thousands of kilometres apart. In parallel with these achievements, Anangu are determined for their children to be educated in modern schooling and higher learning, so that they will one day manage their own communities independently.

0.3 Ontogenesis: an education

It has not been possible for me to describe ways of meaning in the Western Desert language without confronting the contradictions that these stories illuminate. At the time I had also felt some sense of connection to the last families, at least as a member of the human species whose history the experiences of these families so profoundly represented, but also as an adopted *walytja* who had been assimilated in Anangu society, taught to speak the Western Desert language, and lived and worked in the desert homelands. Conversely my working role was to contribute my own modest knowledge from modern western culture as a teacher, towards a practicable synthesis of the two cultures that Anangu were striving for on their own terms. Like Anangu, I have struggled to understand the nature of the connections between the cultures, against which their differences stand out. At what sites in the cultures and the languages, I wondered, do the common understandings rest, that allow us to communicate across forty millennia of separate histories? What are the differences in ways of meaning that lie between the commonalities, and how are these differences made manifest in language?

My own work for Anangu communities over the past two decades has always been practically oriented to community development and education, and under the direction of the communities themselves, rather than of governments, bureaucracies or academic departments. I was first employed by Anangu in South Australia to help develop family based *homeland* communities away from the government and mission settlements. The people I

worked with encouraged me to learn their language, not initially as a linguist, but in order to work effectively under the direction of community elders. At the same time as learning the language, I was also gradually educated in the Anangu system of relationships between kin and land, and in the elaborate cosmology that underpins this system at every point, culminating in my initiation into the secret ceremonial dimension of traditional Law which continues to play a major part in my life.¹ My second job in the homelands was as a teacher and carer for five years in rehabilitation and education programs for Anangu adolescents addicted to petrol sniffing. This experience, and the determination of the elders I worked with to save and educate these children, has been the motivation for my work ever since. It has been a great privilege to be able to work for this collective vision.

In contrast to a more typical route into the field of linguistics, my original intention for engaging with the discipline was not to describe languages but to help meet the educational needs of Anangu for gaining higher education, employment and community control. This need cannot be overestimated: after three generations of western schooling only a handful of Anangu have successfully engaged in mainstream secondary or further education, so that virtually all the jobs in their communities that require mainstream professional training are still occupied by non-indigenous staff, including teachers, health professionals, tradespeople, administrators, storekeepers and so on. Despite almost thirty years of Australian government policies of indigenous community self-management, Anangu communities are as far from this goal as they have ever been. The Anangu communities in SA are unique amongst remote indigenous communities in Australia, in having been taught a 'vernacular literacy' curriculum since the first mission school was established in 1940 by liberal (if paternalist) Presbyterian missionaries. As a result the only books that most Anangu were able to read by the 1980s were Pitjantjatjara Bible translations, which made adult education for community self-management extremely difficult, for both teachers and students. In 1990 after a long campaign, the communities forced the SA State Education Department to replace the vernacular literacy curriculum in their schools with English, against the objections of some of the non-indigenous linguists and teachers involved (Rose 1992, 1996).

At this time I had come to Sydney to train in English literacy teaching for the communities, and as part of this training I was fortunate to be able to study systemic functional linguistics at Sydney University with Jim Martin and Christian Matthiessen. Because of its practically oriented research in spoken and written registers, SFL proved to be a powerful resource for my literacy work with indigenous education programs, both in Sydney, and later when I returned to the Pitjantjatjara homelands as a community educator (Rose 1999). On the other hand its focus on the social contexts of discourse also enabled me to begin exploring relationships between the Western Desert language and its cultural contexts, beginning with construals of abstraction (Rose 1991), causality (Rose 1993) and transitivity (Rose 1996). I was inspired by Halliday's work on the semantic code construed in the grammar of English (1994a), particularly comparisons of ways of meaning in spoken and written English (1989); as well as by Martin's work on the structure and meaning potential of English texts (1992), and on 'grammatical conspiracies' in Tagalog (1981, 1983, 1990,

¹ The secret male ceremonies of traditional Law have been revealed to a handful of non-indigenous men who have been privileged to be initiated in them, and so granted the rights and responsibilities of a *wati*, an initiated man. These rights and responsibilities include ongoing participation in the ceremonies, with growing knowledge and status, the potential for betrothal to the female relatives of men classed as wife's fathers and brothers, and the obligation to make material contributions to their families on request. They also include an absolute prohibition against revealing any of the content of the ceremonies, which are only ever referred to obliquely in the presence of the non-initiated.

1993, 1996a), by Matthiessen's analyses of such conspiracies in English construals of time (1991a), of language (1991b), and of cognition (1998); and by Whorf's work on Native American languages and cosmologies, and on the potential of a science of linguistics (1956). From the viewpoint of the social context of language, my inspirations have included among others, Marx's perspective on the role of material conditions in the evolution of culture (1970), Durkheim's on the relation between modes of social organisation and models of reality, or what he called *conscience collectif* (1912), and Bernstein's on the role of the *pedagogic device* in the transmission and transformation of culture (1971–1990). Throughout the survey I also refer to sympathetic ethnological discussions of Western Desert culture groups, of which the outstanding examples I have found are Tindale (1972), Tonkinson (1978), Layton (1986) and Myers (1986).

0.4 Logogenesis: an approach to description

Although features of Western Desert dialects have been described in several previous accounts, the systemic functional approach I have taken here to texts and their social contexts differs significantly from the mainstream of Australian descriptive linguistics. Previous descriptions of indigenous Australian languages have always taken account of semantic functions to some degree, but they are more generally constrained within a formal rule-based descriptive framework, beginning with the set of phoneme segments, in order to then define the set of morphemes in the grammar, and generally concluding with a shorter section defining the syntactic rules by which the morpheme set may combine in sentences (see reviews in Appendix 2). In contrast to the formalist tradition, the survey here is organised in terms of general domains of meaning, or *metafunctions* in Halliday's formulation—textual, interpersonal, experiential and logical, and the starting point for each section is with texts in social contexts rather than with decontextualised structural units. Because of its orientation to social context, the survey as a whole begins with a discussion of Western Desert culture, exemplified with linguistic features that typify relations between the language and its culture in each semantic region.

0.4.1 *Socio-semantic code*

The survey draws an outline of the socio-semantic code of Western Desert culture, from the perspective of the grammatical patterns through which it is manifested as social discourse. Socio-semantic code is interpreted as encompassing both the set of potential meaning making resources that members can draw on in the social semiotic construction of their culture, and the patterns of unfolding meaning they construct in doing so. The code consists not only of the semantic resources of the language, but includes the varying cultural contexts in which these resources are instantiated as social discourse, and the varying socio-semantic orientations that speakers bring to these contexts. Halliday (1994a:xxx) defines such a code broadly in terms of its contexts of culture, its instantiation as texts, and its acquisition by learners, as follows:

Each language has its own semantic code, although languages that share a common culture tend to have codes that are closely related...The context of culture determines the nature of the code. As a language is manifested through its texts, a culture is manifested through its situations; so by attending to text-in-situation a child construes the code, and by using the code to interpret text s/he construes the culture. Thus for the

individual, the code engenders the culture; and this gives a powerful inertia to the transmission process...Only the grammatical system as a whole represents the semantic code of a language. To understand the code, we need an overview of the grammatical system; both in order to confront one part of it with another, and in order to interpret texts construed in the code.

0.4.2 *Method of analysis*

In order to understand the code of the Western Desert culture I have tried to go beyond the traditional formal descriptive method of listing only overt forms of phonological and grammatical constituents. To interpret how speakers use the grammar to make meaning as text in context, I have endeavoured to exhaustively analyse the whole range of observable linguistic patterning in natural discourse, from as many different perspectives as possible, including patterns of wording, patterns of intonation, and the contrasts in semantic functions that sets of patterns realise in texts. These semantic contrasts may be covert, in that they are realised not only by overt markers such as case affixes or constituent sequences, but by all observable types of relationships between wordings within clauses, and between clauses in texts, as well as the rhythm and tone groups on which they are spoken. Such covert relationships between function structures have been described as *reactances* by Whorf (1956). Because reactances encode meanings covertly, beneath the notice of casual observation or traditional formal analyses, I have followed Whorf in describing the survey as a *cryptogrammar*.

In each chapter the discussion shunts between the syntagmatic relationships of language features in representative texts, the contexts of situation and culture in which they are spoken, and the paradigmatic relationships between features in the language system, gradually building up an articulated overview of the system that can be re-applied in text analysis. In the process of building the description, I began with a corpus of texts recorded over many years, from many different contexts, including descriptions, instructions, meetings, ceremonies, conversations between various kin, and genres such as traditional and contemporary stories. Texts were chosen for analysis on the basis of the set of contexts that they realised; representative samples exemplifying each genre or register variety were transcribed and analysed into clauses and tone groups. Lexicogrammatical and phonological structures at each level of the texts were then analysed for grammatical functions, using speech analysis software for the distribution, focus and pitch of tone groups, and paradigms gradually constructed of these functions and their structural realisations.

To begin with, the most general functional contrasts were identified from their contexts in texts, and correlated with contrasts in their structural realisation. One example of this is the semantic contrast between the speech functions [statement] and [yes-no question]. This semantic contrast correlates with the grammatical contrast between indicative clauses that are [declarative] or [yes-no interrogative] which is realised by the phonological contrast of [falling tone] to [rising tone]. Such general options at the levels of discourse, grammar and phonology can often be identified from speakers' conscious awareness of the language system, and their instances readily identified in a text corpus, giving a general outline of systems as a starting point. Once these more general functional categories had been mapped in the survey, structural variations within each category could be identified and correlated with more delicate semantic distinctions. For example, variations in the tone contours on which declarative clauses were spoken were correlated with variations in the commitment of

the speaker to the statement, from [reserved] to [committed], that were evident for all examples of the feature that were observed in their discursive contexts. The system COMMITMENT was thus hypothesised as one set of options available for declarative clauses, itself an option in the more general system of INDICATIVE TYPE. The draft paradigms could then be reapplied to the text corpus, and their semantic contrasts discussed with Western Desert speakers, to test the hypothesised variations and to identify the elements of social contexts that they realised.

0.4.3 Mode of description

Examples of text analyses are distributed throughout the description, particularly as starting points to contextualise the sets of functions to be described. Text examples are linked to system charts displaying the organisation of functional options and their structural realisations, which are then exemplified and discussed with examples of each feature in turn. This mode of organisation is unusual, in that linguistic descriptions tend to argue from lists of decontextualised structural units that are presented as data. This approach is reversed here for two reasons, i) because the data for the survey are texts in social contexts, from which individual features are then identified, and ii) because this mode of presentation foregrounds social discourse as the entry point for understanding the code.

0.4.3.1 Systemic organisation

The description of variation in functional options is exhaustive up to three levels of delicacy in each functional region of the grammar. All recurring variations are treated as meaningful and incorporated in the system as functional contrasts, rather than dismissed as non-meaningful error or noise, or as arbitrary syntactic rules. On the other hand, no functional contrast has been assumed that was not first observed in natural Western Desert discourse.

Because this kind of descriptive treatment is poly-systemic in the Firthian tradition (e.g. Firth 1957), this degree of delicacy in each functional region allows for an extremely rich description. This contrasts with a tendency to semantic parsimony in formal Australianist descriptions that may treat each rank of a grammar as mono-systemic. An example is the subsuming of types of clause structures realising interpersonal functions, as sub-sets of clause structures realising experiential functions of transitivity (see Appendix 2 for reviews). At higher ranks this naturally limits the potential depth of the description, so, for example, functional options in the clause rank system of transitivity may be limited to the simple opposition of transitive or intransitive (Dixon 1980), and many interpersonal functions ignored. By contrast a major proportion of the survey here is devoted to discussing variation in the types of experiential figures realised by clauses, and their roles in construing experience in text. These experiential options may be freely co-selected with a wealth of options in interpersonal and textual systems, the structures of which can be mapped onto each other to produce a great variety of meanings available for each clause. Altogether around one hundred clause rank systems, i.e. paradigmatic contrasts of functional options for clauses, are described and exemplified; while many other systems—in the grammar below clause rank, in the phonology, and at the level of discourse—are also discussed. Since most of these functional options are able to be selected simultaneously, the range of potential meanings available at any step in discourse is shown to be immense.

This descriptive method can be described as 'cryptogrammatic' in that it is designed to discover syntagmatic instances of what Whorf (1956) called *cryptotypes*, regular grammatical instances (overt or covert) of the semantic categories of the language. Out of this decoding process, a *cryptogrammar* has emerged, that paradigmatically displays the set of grammatico-semantic cryptotypes in the language, as systems of options for making meaning.

By such means a profile has been constructed of the language against its cultural context, that displays a unique socio-semantic code. The result is that the description retains what Halliday (1996a:28) describes as "a mimetic character: it explains the grammar by mimicking its crucial properties". The categories and organisation of the description are based, not so much on traditional classes of linguistic form, but on the semantic categories of the language itself. At the same time the theoretical and descriptive tools used allow the features of Western Desert to be comparable with those of other languages. Theoretical tools have informed the analyses of ranks, metafunctions, systems and structures, and social contexts and linguistic strata; descriptive tools have enabled the identification, classification and labelling of social and linguistic features within these categories. For example the theory enables us to identify the clause rank interpersonal system of MOOD in Western Desert, and to explain its discourse functions in social exchanges. The descriptive tools enable us to identify the set of options for meaning in the Western Desert MOOD system, and to define how each option is realised as clause and tone group structures in text. We are then in a position to systematically show how mood selections in discourse are used to negotiate the range of social relationships in the culture.

0.4.3.2 *Relations to functional theory and other descriptions*

For ease of interpretation, both function structures and systems of options are labelled as far as possible to correlate with labels used in descriptions of other languages in the SFL tradition, particularly in Halliday (1994a), Martin (1992) and Matthiessen (1995). Where a feature or set of features is unique to Western Desert, these are categorised and labelled on appropriate criteria. For example, whereas the term *process* is used by Halliday (1994a) to generalise the experiential function realised by a clause, here the term *figure* is used, to include Western Desert relational clauses that do not unfold as processes. Furthermore the function labels Medium and Range are used to generalise the functions of participants in various types of figures.² These are the same labels used by Halliday (1994a) to generalise participant functions in English, in the ergative perspective on English processes. However, in Western Desert clauses the general model of experience construed in figures is transitive rather than ergative, i.e. processes and relations are generally construed as potentially extended to, rather than caused by, a second participant. But on several criteria the terms Medium and Range are necessary and appropriate for generalising participant functions in Western Desert. The Medium is the generalised core participant in each type of figure, it is identified in the Theme of each message, is the modally responsible person in each type of proposal, and is realised by the unmarked active (nominative) form of personal pronouns.

² In SFL notation, names of functional systems such as 'VOCATION' are distinguished by small capitals; labels for functional items such as 'Vocative' are distinguished by initial capitals; labels for classes of structural items such as 'verb', 'noun' or 'clause' have no capitals. For example, the functional item Vocative may be realised by a noun such as *kuta* 'elder brother'. This item instantiates a selection from options available in the system of VOCATION.

The term Range generalises the types of participant roles that the process or relation is extended to. On the other hand the function label Subject is not used in the description, since there is no such interpersonal function that is structurally distinguished from that of Medium, as Halliday (1994a) describes for English. This has meant, among other things, that a constituent analysis of mood structures in Western Desert has not been necessary, enabling an analytical focus on the prosodic patterns in which interpersonal meanings tend to be realised.³

With this framework we are also able to make systematic comparisons with the organisation of MOOD systems and their structural realisations in other languages, and to show precisely where and how the Western Desert system is unique. That these realisational strategies do not include the function of Subject is one example of a comparison with other languages that do. Another example from the same functional region is the inclusion of modal functions such as obligation and probability as sub-systems within imperative and indicative clauses in Western Desert, whereas in English, for example, these options are selected in modality systems that are independent of mood, i.e. they can be selected simultaneously with any mood option. At the level of cultural context, the deployment of these interpersonal resources in discourse can be shown to share many features with that of certain registers of English, but to differ in ways that conspire to contrast a culture based on egalitarian exchange, to one based on social stratification.

Such social and linguistic comparisons are made explicitly throughout the survey, particularly with the socio-semantic code of English, since this is the language that Anangu wish their children to learn to read and write, and which we are using here for discussing the code of Western Desert. It is hoped that this approach will help to inform comparative understandings of ways of meaning in each culture, particularly within educational and social science discourses of the colonising culture, that will have practical outcomes for the education of Anangu children as well as for theories of sociality.

0.5 Semogenesis: descriptive findings

This section briefly outlines some the survey's key findings about features of Western Desert, focusing on those that may be potentially significant for interpreting the code. These are presented in the order that they are discussed in detail in Chapters 2 to 6. The section begins with an outline of function structures found at each rank of phonology, lexicogrammar and discourse. These structures are potential realisational strategies for features at higher ranks and strata. They are presented first to give an overview of the structuring potential of the language. This is followed by synopses of findings in each metafunctional region of textual, interpersonal, experiential and logical resources in grammar and discourse. The section of Chapters 1 to 6, in which each finding is discussed, is given in brackets.

³ Terms such as Medium and Range are used as labels for participant functions here, in preference to Latinate terms such as *subject* and *object*, which may be traditionally construed as formal rather than functional categories.

0.5.1 Realisational strategies: phonological, lexicogrammatical and discourse rank scales

0.5.1.1 Phonological ranks

Phonology is described in the survey as phased waves of articulatory voicing, rhythmic stress and tonic focus, whose functions respectively include articulating and demarcating lexicogrammatical structures, and presenting them as information. This functional approach to phonology takes the formalist descriptive focus on segmental phonemics in Australian languages as point of departure, but extends beyond it to begin interpreting the crucial roles of phonology in grammatical and discourse functions. Articulation is shown to be effected by options in four systems of tongue and lip posture, air passage and voicing. Each syllable consists of a simple consonant as Onset, that may be omitted in word-initial syllables, and a vocalic Rhyme that may be post-modified by a non-obstruent consonant. Stress is effected by waves of rhythmic feet consisting of a stressed followed by one or more unstressed syllables. The foot has a clear correlative relation with word rank in the grammar, functioning to demarcate word boundaries: the stressed Ictus is almost always the first syllable of the word, followed by a Remiss, and often one or two enclitic syllables. Multisyllabic suffixes can also be spoken on a dependent foot. Tonicity is effected by waves of Tonic and non-Tonic feet. The unmarked structure of tone groups is culminative, with the Tonic foot correlating with the final lexical item of a clause, preceded by Pretonic feet, but this structure may be varied considerably in order to distribute and focus units of information. (§2.5)

0.5.1.2 Lexicogrammatical ranks

In the lexicogrammar, clauses are shown to simultaneously realise the semantic functions of message, exchange move and figure. This metafunctionality of the clause is possible because each type of meaning is realised by a different structural mode, that is mapped onto the others in the clause. Messages are realised by periodic (wavelike) structures, moves by prosodic structures, and figures by orbital (particulate) structures. Of these structural types, it is only figures that are realised wholly within the lexicogrammar, and that most fully employ the potential of lexicogrammatical ranks. The process in a figure is realised at word rank by a verb, or verb complex, that may be inflected by suffixes for functions such as mood, polarity, tense and aspect. Participants in figures are realised at group rank by nominal groups, or at word rank by pronouns, or at morpheme rank by the suffix of dependent verbs. Pronouns may be salient words, or non-salient clitics that are appended to other clause elements or implicitly presumed. Nominal groups and salient pronouns may be inflected by suffixes to distinguish their transitivity roles. Circumstances in figures are realised by nominal or adverbial groups that may be inflected by suffixes to distinguish the circumstantial type, or by a verb series in circumstances of temporal duration. Experiential structures at each rank of clause, group, word and morpheme may be complexed. Logical functions in complexes, such as clarification, addition or time, are realised by the sequence of figures or elements, by a small set of conjunctions, by suffixes on dependent verbs, and by some tone contours. Interpersonal functions are realised by the correlation of tone contours with verbal suffixes for mood and polarity, and modal Adjuncts that may be salient words or clitics, as well as vocative items. Textual functions are realised by reference items that may be pronouns, conjunctions, or verbal suffixes, by the sequencing of lexicogrammatical elements, and by the correlation of tone groups with clauses. (§2.6)

0.5.1.3 *Discourse semantic ranks*

Ranks identified in the discourse stratum include messages and message hierarchies; information units, groups and waves; speech functions, moves and exchanges; and figures and activity sequences. Lower discourse ranks, of message, speech function, figure and information unit, are realised by the grammatical functions of clauses and their correlations with tone groups, as discussed above. The higher ranks of message hierarchies, information waves, exchanges, and activity sequences may function harmoniously as cohesive text phases. The metafunctional structuring of these discourse segments is most generally sequential, linear and periodic. Activity sequences and exchanges are structured sequentially, while message hierarchies and information waves are complementary periodic structures. Linear structures include lexical strings, reference chains and modal prosodies. The mapping of these structures onto each other at the rank of discourse segment potentially renders each segment as strongly cohesive. (§2.7)

0.5.2 *Textual resources*

In Chapter 3 elaborate systems of resources are described for identification and thematisation of elements, and for distribution and focus of information.

0.5.2.1 *Participant identification*

The chapter begins by illustrating how patterns of participant identification are intimately bound to the role that language is playing in the context of speaking, from exophoric reference to the situation in instructional exchanges, to the cohesive functions of endophoric reference in stories. Participant identification is found to be closely involved with patterns of thematicity in clauses, with the participant functioning as Medium identified within the Theme of each clause. In other words the identity of the Medium is taken as the obligatory point of departure for each message, together with other potential thematic elements. These may include other experiential elements—participant, circumstance or process, as well as conjunctions and interpersonal items like vocatives, modal items or question elements that contextualise the message in the interaction. (§3.2)

0.5.2.2 *Theme*

How participants are identified is also found to play a part in the relative prominence of a clause within the message hierarchy of a text. Identities can be backgrounded if realised as clitic pronouns, and foregrounded as nominal groups. By cliticising the identity of the Medium, other participants, processes, or circumstantial elements can become salient Themes, to which the Medium as clitic is appended, so that its identity is backgrounded but still thematic. (This function is comparable to that of passive voice in English, that enables a Range or Goal to become unmarked Theme, but the Western Desert system differs in that Medium also remains thematic. The English system is cued to the interpersonal role of Subject as unmarked Theme, while in Western Desert this is experiential Medium/Theme.) The identity of Medium may also be implicitly presumed, if it is a non-interactant in indicative clauses, or addressee in imperative clauses. (This implicit presumption is comparable with the cohesive function of ellipsis in English, which is also keyed to mood.)

Alternatively the Medium of a clause may be identified by conjunctive ('switch') reference, as the same or different from the Medium of the preceding clause, with a pair of additive conjunctions, *munu* 'same Medium' and *ka* 'switch Medium'. Stress and tonicity also play a part in thematic prominence. Least prominent Themes are spoken on an incomplete foot consisting of a weak Remiss syllable following a silent Ictus, while the most prominent Themes are also the Tonic foot of the tone group. (§3.3)

0.5.2.3 Information

Information distribution and focus are found to be realised by the correlations of tone groups with clause (elements), with the default pattern of one tone group correlating with a clause, culminating with the tonic focus on its final lexical element. This means that in an activity sequence, the more persistent identities of participants, particularly Medium, tend to be the Given elements of each clause, and are tracked thematically through the discourse, while the changing processes they are involved in at each step of the sequence are typically presented as the culminative New element. This is the discourse meaning of the so-called SOV pattern of formalist language typologies, or in the labelling adopted here, Medium ^ Range ^ Process. In other words the informational focus tends to be on experience as unfolding process, in contrast to languages like English that tend to place culminative focus on participants. However, this unmarked pattern is open to much variation. (§3.4.1–2)

A related pattern is that of late New elements, spoken on additional tone groups, that function as expansions of other clause elements. These structures in Australian languages have been interpreted variously as 'afterthoughts' since they seem to be added after the Process, or as 'discontinuous noun phrases' since they seem to function like nominal group modifiers in English. Although both these labels are unfortunately anglocentric, late New elements in Western Desert clauses are comparable to the function in English nominal groups of embedded circumstantial Qualifiers. Because Qualifiers in English post-modify the Head of nominal groups, they may also be focused as culminative New elements in a clause, and the clause sequence may be varied through the voice system to make them the final elements. In Western Desert this informational function is achieved by realising modifying elements as separate constituents that can follow the Process and be independently focused as late New. They may also be inflected to make it clear which clause element they are modifying. For this reason adverbial elements realising qualities have sometimes been mis-labelled as 'active adjectives', since they may be inflected as active like the nominal groups they modify, and so appear to formally resemble nominal elements. (§3.4.1.2)

In the discourse stratum, groups and waves of information units are described, with informational peaks realised by those information units with marked (i.e. thematic) tonic focus. Information waves are found to correlate with segmentation of narrative texts from experiential, logical and thematic perspectives; each phase may be announced by a cohesive conjunction or foregrounded Theme, and functions ideationally as a distinct stage in the overall sequence of the story. In traditional stories the structure of information waves is found to be typically culminative, presenting the clauses with marked information focus as the culmination or consequence of the narrative stage. (§3.4.2.4)

The findings of this chapter challenge claims of 'free word order' in Australian languages, such as Dixon's (1980:441), "The order of words and phrases can, in most Australian languages, be extraordinarily free; it has little or no grammatical significance." They also extend considerably beyond formalist typological studies by Comrie (e.g. 1981), Givón (e.g. 1983), Greenberg (e.g. 1966), Chafe (e.g. 1976) and others, of 'syntactically basic order' of

clauses, such as Bowe's (1990:viii) mono-systemic formulation for Pitjantjatjara clauses, of "a sentence initial focus position, a pre-sentential topic position, and a post-verbal afterthought or anti-topic position" (reviewed in §A.2.7 below). On the contrary this survey demonstrates that Theme, New and late New are independent variables, realised by a correlation of lexicogrammar, sequencing and intonation, and that their function is not arbitrarily syntactic but is rather to organise meanings coherently in the complex contexts of social discourse.

0.5.3 Interpersonal resources

The *Western Desert Code* is the first Australian language description in which systems of interpersonal grammatical functions, particularly those realised by tone contours, have been comprehensively analysed and described in their own right. Morphemes realising some interpersonal functions are identified in formal descriptions, but are dispersed across various syntactic categories, and often glossed as experiential elements, while tone contours are rarely considered. As a result the survey here is able to dispel some popular misconceptions in the field about indigenous 'communication styles', that arise from the paucity of systematic study to date, by showing how Western Desert speakers use interpersonal resources in varieties of contexts of social interaction. These linguistic observations are informed by ethnographic descriptions of interaction in Western Desert culture, but extend and modify them with new findings. (§1.1)

It was found that interpersonal meanings in general tend to be realised prosodically, as tone contours that correlate with lexicogrammatical elements. These include mood and polarity suffixes on the finite verb, and modal Adjuncts and clitics realising various interpersonal assessments, that tend to occur in clauses at prosody boundaries. In the unfolding contexts of clauses and text phases, these resources are shown to prosodically amplify or diminish interpersonal meanings. The potential for amplification is also a characteristic of interpersonal systems, in which various types of assessments are graded between high and low values. (§4.1)

0.5.3.1 Mood, polarity, modal assessment and vocation

Speech functions realised by mood options enable speakers to adopt roles in exchanges and to assign complementary roles to their addressees. In imperative clauses, four general types of proposals are realised by person options: commands, offers, suggestions or indirect proposals, and indicative clauses can realise three types of propositions: statements, yes-no, and element questions. Statements may have a tag question inviting confirmation, and element questions may demand the identity of participants, circumstances and three varieties of processes. These general options for speech functions may be adjusted by tone contours that express degrees of amplification or diminution, of the force of the demand in a proposal or an element question, or the commitment to a statement. They may also be adjusted lexicogrammatically, by modal Adjuncts or verbal affixes, in terms of the orientation of proposals as direct or oblique, the obviousness of the obligation, the probability of propositions, and the ability of participants to complete a process. (§4.3–4)

It was also found that proposals can be realised obliquely by various metaphors of mood that open up the options for responding. Proposals can be coded as questions that invite confirmation instead of compliance; they can be oriented subjectively as projections of

thoughts and feelings; or they can be objectified as modalised statements of expectation or need. Such metaphors are a significant feature of adult discourse, particularly where the relative status of interactants is at risk. (§4.3.6)

All major clause types can be modally assessed in terms of:

- i) the frequency of an event,
- ii) its temporal continuity,
- iii) the completeness of an event, quality or quantity,
- iv) a judgement of reality,
- v) the responsibility of the speaker for an utterance,
- vi) deference towards the addressee, or
- vii) desire for an object or outcome. (§4.7)

Many of these assessments are also gradable. Of course major clauses may also be negated. (§4.5) Minor clauses include varieties of calls, exclamations and greetings (but not leave-takings). (§4.2) Major and minor clauses may include vocations to the addressee, including various types of personal names, kin terms and other social categories. Vocatives are frequently spoken on their own contours, which realise options unique to this system. (§4.8)

0.5.3.2 *Interpersonal options in exchanges*

The survey illustrates how these interpersonal grammatical resources function in exchanges between speakers to negotiate the tenor of their relationships, most generally in terms of status, social proximity and affect. Explicit enactments of status differences are generally found only in relationships of close contact within extended families, by features such as deferent vocations, metaphors of mood and low values of force and commitment, versus dominating vocations, direct demands, high assessment values and negations. These contrasts are likely to be features of interactions between older and younger kin, particularly siblings, in situations where the older person's authority is significant, such as ceremonial, economic or educational contexts.

Close contact between equals tends to be characterised by features such as direct vocations, direct demands, exclamatives, little modal assessment, stressed tones, as well as by joking, mimicry, teasing, swearing and sexual references. This may apply to relationships between brothers or between sisters, between men and women who are actual or potential spouses, between grandparents and grandchildren, as well as between parents and children and opposite-sex siblings up until adolescence when these relationships become more circumspect. In contrast the general social principle of inter-familial equality and the need to avoid conflict means that more distant kin tend to be addressed with circumspection, ranging from expressions of mutual deference and solidarity, to the distinct 'in-law' register *tjalpawangkantja*, and total avoidance in the case of certain ceremonial relationships. (§4.1.3)

These interpersonal discursive patterns enact a culture organised on principles of egalitarian exchanges between distant families, of material resources such as reciprocal hunting rights, of symbolic resources in religious ceremonies, and of marriage partners. The need to minimise conflict in such relationships means that implications of status differences

are avoided by means of mutually respectful interaction. At the same time, within extended families the closest relationships are enacted between same-sex siblings (including cousins) who share responsibility for land and raising of children, and this closeness extends also to grandparents who have a major responsibility for the care and education of their grandchildren. There is thus a natural close relationship between members of alternate generations which is codified in the ceremonial system, in which alternate generations are grouped together, into which youths are initiated at puberty. It is at this time that individuals begin to establish relationships with distant kin, and to interact with them, and with their parents' generation and opposite-sex siblings, with circumspection. Status differences arise from age ranking within each generation, whereby juniors learn from and are expected to defer to more knowledgeable seniors. Relationships in this kinship system are highly positional in that they are defined by criteria beyond individual personalities, so that classificatory kin, who may have no actual family relationship, interact as though they do, in a manner determined by their classificatory relationship. For these reasons the linguistic characteristics of each type of interaction are part of the conscious knowledge base of the culture, and may be explicitly taught. (§1.1)

0.5.4 Experiential resources

Experiential structures in Western Desert are described as orbital on systemic and structural criteria. From the systemic perspective of nuclear transitivity, figures realised by clauses consist of more or less obligatory elements, including a nucleus of Medium (and Process), that may be extended to obligatory or optional Ranges and associated with more or less peripheral Circumstances. From the structural perspective, constituent sequence is shown to play no part in the realisation of experiential functions, so that the sequence of elements may be arranged in any order on textual criteria, and elements may be implicitly presumed.

0.5.4.1 Types of figures

Figures are identified of three general types: actions, significations and relations. The general model of experience observed in figure types is primarily a transitive one of extension, rather than an ergative model of causation. Participants functioning as Medium in Western Desert are those that act, sense, say, or are ascribed an attribute or assigned an identity; they tend to be active but not necessarily agentive. Ranges are participants that the process or relation is extended to, i.e. that is acted on, given to, perceived, reacted to, said or said to, or the attribute or identity of the Medium. In other words the type of extension may be effect on a Goal (in effective actions), benefaction, signification, reception, attribution or identification. Specifically agentive participants occur only in restricted figure types: they may induce mental reactions, attribute qualities, or assign identities. These findings contrast with the ergative model of nuclear transitivity in English (Halliday 1994a), and challenge formalist claims of ergativity for Australian languages, that are derived reductively from the morphology of participant inflections (e.g. Dixon 1979, 1994).⁴ (§5.1)

⁴ This argument is complex, but perhaps worth summarising here. Dixon's and other formalist interpretations of ergativity in Australian languages are derived from a universalist definition of a structural form, for example Matthew (1953) "In nearly all cases the ergative construction demands the presence of three elements: 1) a transitive verb, 2) an expressed object figuring as the grammatical subject, and 3) the logical subject denoted differently from the way it is when paired with an intransitive verb" (cited in Halliday

The most general option in action clauses is between an effect or no effect of the action. Non-effective actions are typically also intransitive (involving Actor only) but may be transitive, i.e. extended to types of Range that are not impacted on by the action, such as hills that are climbed, games played or songs sung. In effective actions the obligatory second participant is the Goal that is impacted upon, and may also include a Recipient in dispositive actions. The action region of the grammar construes people as the most active type of entities. They are the most frequent Actors in discourse and are rarely acted on by other people or by non-human entities. Verbs realising actions are by far the largest group in the verbal lexicon. (§5.2)

Signifying clauses may be mental or verbal, they may project ideas or locutions respectively, or may construe what is sensed or said as a thing. Verbal processes may project proposals or propositions, typically quoted as dialogue, but may also be reported, and their Sayers may only be people. Mental processes are either perceptions of or reactions to phenomena. Perception does not sharply distinguish grammatically between phenomena that are external or internal to the Senser's consciousness. Both 'seeing' and 'thinking' are typically construed as 'inner speech' that is quoted with the intonation and other features of quoted dialogue. Reactions construe another type of mental processing as the Senser reacting to phenomena. They are typically affective reaction, such as *mukuringanyi* 'liking' (literally 'becoming desirous') or *nguluringanyi* 'fearing' ('becoming 'fearful'), but may also be cognitive, such as *nintiringanyi* 'learning', (literally 'becoming knowledgeable'). Reactions have the added potential of being induced by an additional agent, an Inducer who, for example, 'frightens' or 'teaches' the Senser. (§5.3)

Relations between entities and qualities are most frequently attributive, including classifying, describing, possessive and circumstantial types. Attributive relations may be construed as persistent without a process, or as unfolding:

- i) by verbalising the Attribute with an inceptive suffix, so that people or things become members of a class, or acquire a quality,
- ii) with a verb of 'having', or
- iii) in the case of circumstantial relations with a verb of stance depending on the posture of the entity: water for example 'lies' in a place, people may 'sit', hills 'stand', and animals tend to 'crouch'.

1977:11). Halliday (1967b, 1977, 1994a) takes this as point of departure to interpret ergativity as a functional option at clause rank between [agency] or [no agency], which he demonstrates applies to various process types in English, and suggests may be a feature of most languages to a lesser or greater extent.

In Western Desert, this option of external agency is only a feature of a few peripheral figure types—induced mental reactions, and caused relations. The choice in action clauses is not of agency but of [effect] or [no effect]—a transitive model of result rather than an ergative one of causation. English does satisfy Matthew's second criterion, since in passive clauses Goal ('expressed object') can function as Subject ('grammatical subject'), but this criterion is not applicable to Western Desert, which does not have a Subject function. As for the third criterion, in Western Desert nominal groups functioning as Medium ('logical subject') may be inflected as active in transitive clauses, but only to distinguish Medium from Range, not because the Medium is inherently agentive. In signifying processes the Senser or Sayer is clearly not agentive, while in effective actions it is the Actor-Process nucleus that is construed as impacting on the Goal, not an optional external agent. Effectivity is a function of the figure as a whole, not an inherent property of one of its participants. Likewise transitivity is also a function of the whole figure, not of verbs in isolation, many of which can function in either transitive or intransitive clauses, with or without transcategorising. Furthermore effectivity and transitivity are not equivalent: signifying, relational and many action clauses may be transitive (i.e. extended to a second participant), but are not effective. On all these criteria, the application of the universalist formal category of 'ergative' to Australian languages is shown in the survey to be misleading (see Martin 1996a, for a review of arguments for case relations).

Identifying relations are construed as persistent, and may identify entities by name, kin relation, role or possession. Identifying relations are a significant point of contrast between Western Desert and European cultures. Options in this system have expanded enormously in written languages such as English, particularly to enable the manipulation of Theme and New elements, in tandem with grammatical metaphor in certain registers (such as linguistic description). In Western Desert it is still most typically people or places that are identified by name, kin relation or role. Both attributive and identifying relations may be caused by an additional agent, an Attributor who ascribes a class or quality, or an Assigner who assigns an identity. Along with induced reactions, this is one of few regions in the grammar that a participant is specifically construed as agentive. (§5.4)

Circumstantial elements can modify a figure or one of its element with the logico-semantic categories of time, place, purpose, reason, behalf, means, accompaniment, role, comparison or quality, and are realised by nominal, verbal or adverbial groups depending on the type. An outstanding feature is the realisation of temporal Duration by a series of non-finite processes, e.g. *ankula ankula ankula* 'going going going'. This is not part of the verbal group realising the Process, but is a separate circumstantial constituent. Circumstances of Duration typically consist of a series of three processes, but may be extended up to six, intensifying the time elapsed. This type of structure is one origin of the label in formal descriptions of Australian and Papuan languages, for the class of verb morphology known as 'serial verb form'. (§5.5)

0.5.4.2 *A theory of experience*

These systems of experiential options, and their patterns of instantiation in texts, present a model of reality that unfolds with people at the centre, as Actors, Sensors and Sayers. Animals can sense, and while both animals and weather phenomena can act effectively, in general non-human entities are more likely to be acted on or perceived by people.⁵ The acts of classifying and naming are also construed as the province of agentive people, and a site of potential contestation, as shown in the text analyses in Chapter 7. This is a crucial point, as Western Desert culture is based not on accumulation of material goods, as in stratified Eurasian cultures, but of information. Individuals acquire valued information as they grow older, which they in turn distribute to juniors in exchange for respect and obedience in matters of Law (Myers 1986). The right to classify and name derives from the collective status of the elders, in turn flowing from the immutable authority of the Law that they hold in trust.⁶ (§1.1.1–3)

Options and discourse frequencies of signifying processes construe a model of meaning making that is inherently social. In verbal processes, speech itself is theorised stratally as meaning, wording and intonation: either the meaning of locutions is reported, or (more often)

⁵ This people centred construal of experience contrasts with Marr and his followers' simplistic assumptions of relations between linguistic ergativity and 'primitive' cultures' models of human agency, based on a deterministic interpretation of Marx's historical materialism and an inadequate formalist model of ergativity. Halliday (1977:10), "The ergative construction, as it happens, played a prominent part in discussions of stadiad theory (Mescaninov 1949), being associated, in one account, with a primitive level of technology in which man was powerless in the face of action by external, natural (including supernatural) forces; in which he saw himself as an agency rather than as actor, as an intermediary rather than an initiator of processes and changes."

⁶ Note that this restricted right to classify and name still applies equally to European culture, particularly in academic fields.

the wording and intonation are quoted. That the only Sayers are people, and not other symbolising objects, reflects an oral culture in which non-human entities may act and even sense, but not mean. In the region of mental processing, a theory of consciousness is construed as typically either the inner speech of the Senser, or as a change in the Senser in reaction to phenomena. This model may be contrasted with that of English in which cognition and perception are sharply distinguished, and are typically reported as the meaning of what was thought or perceived, rather than quoted wording (Halliday 1994a). These European patterns tend to represent thinking and perceiving as individual mental activity, whereas the Western Desert model construes them more as social semiotic processes. On the other hand the English system also construes affective mental processes as contrasting with perception and cognition. However the Western Desert grouping of cognitive mental processes such as 'learning' with affective processes, as types of inceptive reaction, foregrounds a perspective on knowledge and skill as qualities that people come to possess (and can be taught), on the same model as love, courage and other affective qualities. (§5.3)

These findings of rich experiential resources in the transitivity system call into question the parsimony of formalist descriptions of transitivity in Australian languages, as just two types of verbs, "either strictly transitive - occurring with subject (A) and object (O) core NPs - or strictly intransitive - occurring just with a subject (S) core NP" (Dixon 1980:378). Dixon and others have attempted to explain variations in Australian languages from this binarism by appealing to North American formalist theories of 'deep' syntactic rules, but the survey here shows that this is unnecessary and counterproductive if we wish to understand what Australian languages mean. The orbital model of experiential structure here also touches on formal nuclear-peripheral models of clause syntax such as Role and Reference grammar (Van Valin 1993), but it differs in its semantic perspective on clause elements as process, participants and circumstances, rather than the formal categories of predicate and arguments, or of subject, object, indirect object or dative. Formal models treat such structures as motivated by semantically arbitrary syntactic rules for binding together morphemes in which meaning is held to reside. One result is that interpersonal functions are not distinguished from experiential ones, but may be assigned peripheral slots in the syntax, and textual functions are represented as arbitrary sequencing rules. On the contrary it is shown here that experiential meaning is not a by-product of orbital structuring, but the principle underlying it and enabling it to be phased together with interpersonal and textual structuring in the clause. (§2.4)

In addition to the theory of processes and participants construed in the transitivity system, and the theory of logicosemantic relations construed in circumstantiation, a theory of qualities that can modify processes and participants is construed by items in the circumstantial system of QUALITY and the nominal group system of EPITHESES. These items realise qualities such as form, dimension, texture and consistency. Each quality type has positive and negative values, such as the general qualities *wiru* 'good' and *kura* 'bad'. In the personal pronoun system, a theory of social interaction is construed that classifies persons as speakers, addressees or non-interactants, and as individuals, pairs or groups. These options in numbers of people are reflected in the nominal group system of NUMERATION, that includes the same options of single, dual or plural. Both qualities and plurality can be amplified or diminished by a set of items in the INTENSIFICATION system, but not counted.⁷ Again this

⁷ From this perspective, counting in other cultures can be interpreted as a system for exactly intensifying plurality, and the pre-counting options of inexactly intensifying plurality and qualities are still a part of everyday language systems. While counting of objects is at least as old as writing, it was not until the Renaissance that Europeans could imagine counting exact degrees of qualities. Aristotle wrote that

reflects a culture in which accumulation and exchange of material goods is not significant. (§2.6.4–5)

Finally, the set of options available for transcategorising word classes reflects many aspects of the transitivity system in microcosm. (§2.6.4.3) The most fruitful region is that of processes: nouns and adjectives functioning as things and qualities can be verbalised in various ways to function as processes, that are inceptive or caused relations, or effective actions; verbs functioning as non-effective actions can be made effective; relational verbs can become actions. A less prominent region is nominalisation of processes to function as a quality (either as a circumstance of Role 'one who Vs', or embedded in a nominal group as a Qualifier). Adjectivisation of things, epithets, temporal adverbs and processes realises options in the nominal group system of CLASSIFICATION. The skewing of options and instances towards verbalisation contrasts with that of English and other written languages, in which nominalisation is the dominant trend. Likewise classification of things in nominal groups is a minor motif in Western Desert, whereas it is characteristic of technologically developed cultures. This applies also to types of things realised by common nouns: although the potential for expansion exists, there is little development of classifying taxonomies of things, in comparison with technologised cultures, rather each natural species, cultural object or type of kin relation is specified, with a few general terms such as *kuka* 'game', *punu* 'wooden artefact' or *walytja* 'kin'. (§1.2.1) It is significant that the lexis of processes is at least as extensive as that of things, often in areas construed by European languages as things, such as various types of 'sounding'. In general the Western Desert model of experience accords with Whorf's assessment of the Native American languages he studied, as construing speakers' experience subjectively as flux, as 'time becoming later', in contrast to the tendency in Standard Average European languages to 'objectify' the experience of time, as an abstract thing.

0.5.5 Logical resources

Logical resources for complexing of clauses enable considerable variation in expansions, as well as the types of projection outlined above for signifying clauses. Varieties of clause expansions include elaboration: specifying and clarifying; extension: additive 'and', adversative 'but', and alternative 'or'; and enhancement: time, reason, purpose and condition. Whereas mental and verbal projections may be quoted or reported, the options in taxis are restricted for expansions: elaborating and extending complexes are paratactic while enhancing complexes are hypotactic with non-finite β clauses. Specific types of enhancement are realised by the aspect of the β process, and the sequence of the α and β clauses: time is iconically realis β Event \wedge α Event, reason is contrasted as α Effect \wedge realis β Cause, condition is α Event \wedge realis β Condition, spoken on fall-rise tone, while purpose has irrealis β Purpose. Tone is also involved in specifying relations (tone concord between primary and secondary clauses) and alternative relations (tone contrast). Other relations are realised by conjunctions. (§6.2–3)

Below the clause, compound processes are frequently realised by hypotactic verb duplexes, which are a rich source of lexical expansion; multiple participants are realised by

measurement is possible only after the mathematician "strips off all the sensible qualities, e.g. weight and lightness, hardness and its contrary, and also heat and cold and other sensible contraries" (cited in Crosby 1997:13).

elaborating pronoun complexes or by additive nominal group complexes, and complex circumstances may be elaborated, added or enhanced. At morpheme rank, lexemes may be complexed to produce compound words, and affixes are complexed to produce various grammatical inflections. (§6.5)

Most clause complex relations are between two clauses, with the secondary clause elaborating, extending or enhancing the figure realised by the primary clause. There is a difference, however, with relations of addition and time, which can be used to construct extended series of figures that are ordered in time, realising the discourse rank of activity sequences, the basic components of narrative. Additive series of finite clauses construe each event in a sequence as wholly discrete, and added to the preceding event. Within steps of such a series, a hypotactic series of dependent clauses may be nested, as a temporal sequence that concludes with the finite event. Hypotactic clause series represent a sequence of connected processes that are partially discrete, but oriented towards completion in the final finite process. This type of hypotactic serial structure has been referred to in formal descriptions of Australian and Papuan languages as 'clause chaining', although without the functional interpretation provided here. Other common logical syndromes include nesting of projections with the additive sequences of narrative, to realise dialogue, thoughts and perceptions of characters, as well as nesting of various types of expansions within projections. (§6.1.2)

Linking segments of activity sequences, the conjunctive Adjunct, *palulanguru* 'from that/then', functions as a cohesive conjunction, that also serves to indicate the beginning of new phases in narrative. (§6.4) In general, extended texts consist of serial clause complexes, as in spoken discourse in other languages, contrasting with the organisation of written text in languages like English, as discrete sentences linked by a variety of cohesive conjunctions (Halliday 1989, 1994a, Martin 1992). Another major contrast with written modes is the minor role of ideational grammatical metaphor in Western Desert, whereas a major component of written registers in English and other languages is the reconstrual of logical relations between clauses, as relational clauses with nominalised processes functioning as participants (Halliday 1998). Although processes may be nominalised in Western Desert, they do not function as participants in other clauses. (§6.6)

Because it takes a poly-systemic perspective on taxis and interdependency type, to interpret the full range of possible logico-semantic relationships between clauses, the text based description of logical resources in the survey is considerably more elaborate than previous descriptions of clause complexing in Australian languages (e.g. Austin 1988). In sum, the Western Desert theory of experience encoded in the transitivity and complexity systems construes reality in terms of processes and relations between entities that unfold in a rich variety of sequences. It is a concrete subjectively experienced model of reality, but one in which abstract principles may be encoded through the layering of multiple analogous concepts in discourse, as well as in the religious art of the Western Desert. This potential for construing abstraction is brought out in the analyses of mythic narratives in the survey.

This concludes the summary of descriptive findings. We can now turn to a fuller analysis of the social contexts of Western Desert culture and the relationships of language to these contexts.

1 *Culture and language*

The starting point for the survey of the Western Desert code is with the context of culture in which it has evolved. In this brief account I have tried to develop a model of the culture from the perspective of its manifestation as social discourse. This account is not presented merely as a sketch of the ethnographic background to the language, but is intended as the critical foundation for interpreting what the code means, and why it is organised and enacted as it is.

The chapter is set out as follows. Firstly, Western Desert social organisation is discussed in terms of the kinship system, customary Law, and the ideology of 'egalitarian mutuality' underpinning the social system. The realisation of social relations as exchanges between speakers is then exemplified and discussed. Secondly, the material base of the culture is explored in terms of traditional fields of socio-economic activity, followed by examples of language features that realise these fields. Thirdly, a model is developed of the semiotic resources of the culture in terms of variation in dialect, register, genre and code, with relevant text examples, followed by a discussion of phylogenesis. The chapter is thus organised on metafunctional lines, beginning with the interpersonal, followed by the ideational and then the textual dimensions of the culture interpreted as a social semiotic system, and this provides an opportunity to briefly illustrate some characteristic syndromes of Western Desert language features within each of these functional regions.

The descriptions of ethnographic features in each section are informed by published accounts of Western Desert groups, particularly Tonkinson (1978) and Myers (1986), but also by more general discussions of indigenous Australian cultures referenced throughout the text. However most of the information given here comes directly from senior Anangu, especially my adoptive parents Nganyintja and Charlie Ilyatjari, who have taken great pains to educate me in the ways of their culture over many years, and continue to do so. Of course the observations about language in social context are primarily informed by the theoretical work of Halliday (1994a), Martin (1992) and Matthiessen (1995), (re)interpreted through the lens of the Western Desert texts I have analysed in the course of this research.

1.1 Social organisation: variations in tenor

1.1.1 Kinship and autonomy

Social relations in the Western Desert are regulated by a strongly classified kinship system based on the general categories of generation, gender, descent and marriage which extend beyond the direct kin community to include, ultimately, the entire indigenous Australian population. The core of the kinship system is the local family consisting of a husband and one

or more wives, their children and grandchildren, and possibly aged parents, as well as other relatives. The estate, or *ngura*, of each local group is centred on a location containing a relatively permanent water source, which may also be held to be the spiritual well-spring of the family, created by an ancestor figure in the Dreaming (discussed below in §1.1.2 under *The Law*), from whose essence the family is in part descended. The local group and their estate is symbolised at one level by the concentric circles in the Western Desert painting tradition, illustrated in Figure 1.1 below.

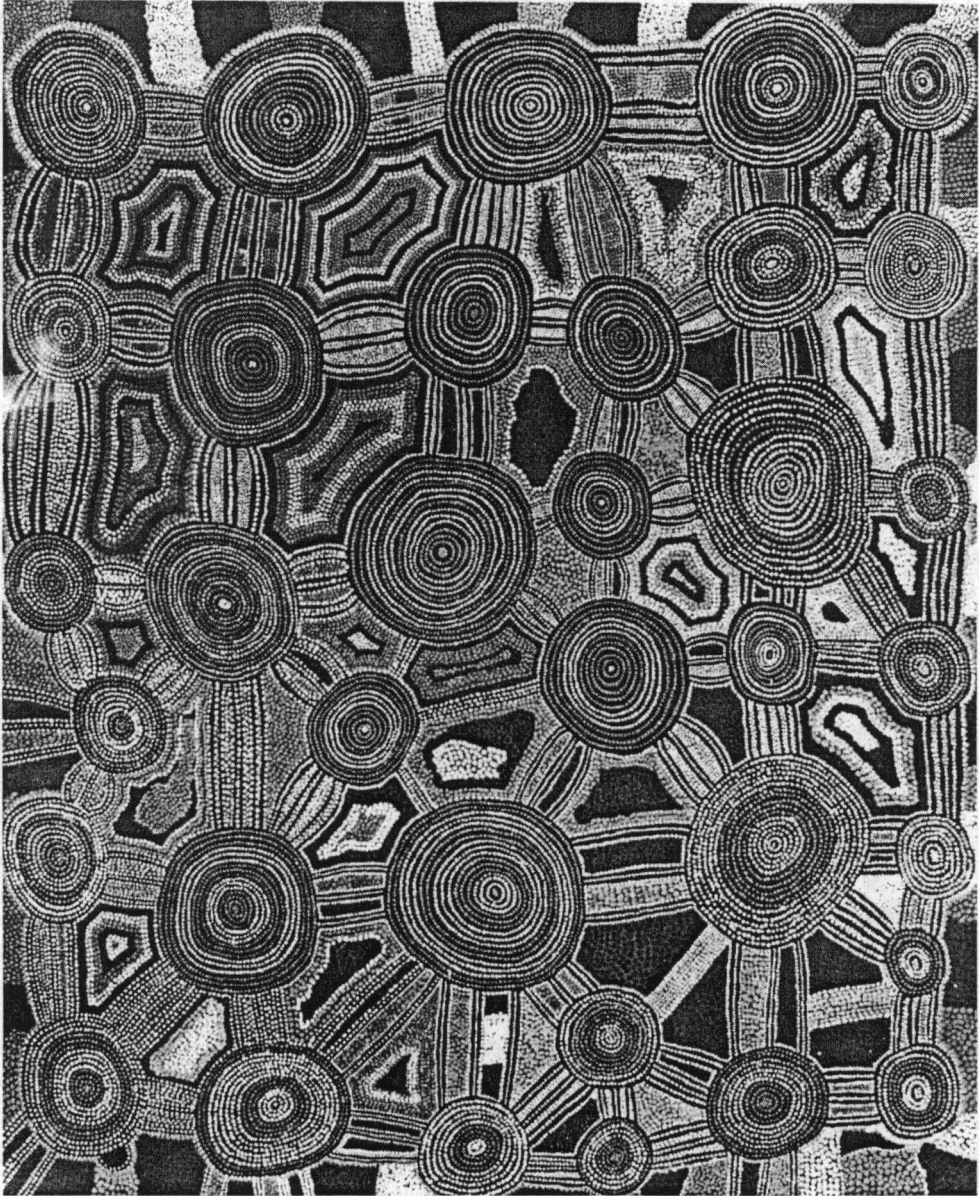


Figure 1.1: Kaakunatintja
(Uta Uta Tjangala (nd) courtesy the artist and SA Museum)

Within each concentric grouping in paintings such as Figure 1.1, the inner circle may represent the young children of the family recently emerged from the spirit realm into the manifest world. The next layer may represent their older siblings who are responsible for their care. The next ring may represent the parents, and the next their grandparents. The parallel lines between these concentric circles represent, at one level, relationships between family groups and their estates. Between local families these are ties of common descent, but as the distance between them grows, they may become ties of either marriage or betrothal, or of classificatory (in contrast to actual) kinship. Within the classificatory kinship system, each person stands in a clearly defined kin relation to all others, to whom one is expected to behave accordingly. Relationships are highly positional in Bernstein's terms, in that each person's social position in relation to others is defined by criteria beyond their own person.¹ So, for example, one interacts with a man classified as a brother as if he is one's actual brother, or with a woman classified as one's mother's sister as if she is one's own mother, and so on. Although there is generally more social distance exhibited between classificatory than between actual kin, the warmth and respect with which classificatory kin interact is genuinely felt.

Three classificatory kinship systems operate in the Western Desert. In the northern regions the so-called subsection, or 'eight-skin', system is used by dialect groups such as Gugadja, Mandjildjara and Pintupi, in common with neighbouring peoples to the north and east, such as the Djaru, Walpiri and Aranda. In the west the 'section system' with four categories is used by the Ngaanytjara, Ngadadjara and other dialect groups. Both the section and subsection systems classify all people within an objective kinship category, which is determined by one's father's category. Members of each category stand in a specific type of relationship to members of another. So, for example, in the subsection system, all men classified as *Jangala* are either sons or fathers to all men classified as *Jampijimpa*, and are potential husbands to all women classified as *Nungerai*. On the other hand the south-eastern dialect groups, Pitjantjatjara, Yankunytjatjara, Kukatja and others do not use these objectified kinship classes, but calculate relationships only by family trees, as the northern and western groups also do. Despite these regional differences the classification principles of the kinship system are the same. It is likely that the section and subsection systems have been adopted by Western Desert groups from neighbouring peoples with whom they interact ceremonially and exchange spouses. All regions within the Western Desert also interact ceremonially and exchange spouses, and elders have no difficulty translating other kinship systems to their own.

The principle of descent in the system as a whole is primarily patrilineal, so that one's (classificatory) fathers, their brothers and sisters are in the immediately ascending (agnate) category; whereas one's mothers, their sisters and brothers are in the opposite (affinal) category to one's fathers. This means that all men classified as one's father's brothers are addressed as 'father', all mother's sisters are 'mother', father's sisters are 'aunt', and mother's brothers are 'uncle'. Father's sisters of course marry mother's brothers, as fathers marry mothers. Directly opposite (affinal to) one's own category, i.e. in the same generation, is one's spouse, sisters-in-law and brothers-in-law. These general principles of descent and marriage are diagrammed in the following Figure 1.2.

¹ Bernstein (1971–1996) contrasts 'positional' types of kin relations that are characteristic of families with a direct relation to the material base of a culture, with the more 'personal' forms of social relations characteristic of contemporary middle classes, which have only an indirect relation to the material means of production of industrial societies.

In keeping with the principle of social/spatial distance separating agnates from affines, one's potential fathers-in-law and mothers-in-law belong to the classificatory categories 'mothers' brothers' (uncles) and 'fathers' sisters' (aunts), but come from distant families. On the other hand, children of one's actual mothers' brothers and fathers' sisters (i.e. one's close cross-cousins) are addressed as 'brother' and 'sister', since they are not potential spouses or in-laws.

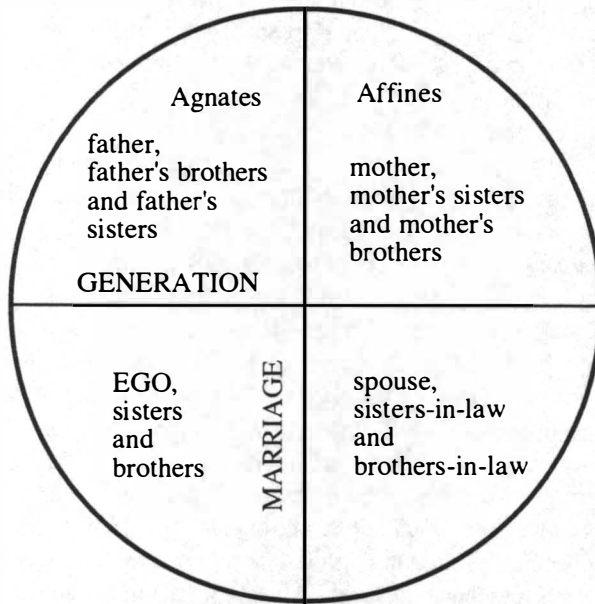


Figure 1.2: General kinship categories

What is missing from the categories in Figure 1.2 above are alternate generations, one's grandparents and grandchildren, as well as sons and daughters, and nieces and nephews. This is because in Western Desert thinking, grandparents/grandchildren are in the same generational category as oneself, while one's children are in the same category as one's parents. In other words the generational dimension of the system is construed as cyclic, and the cyclicity of these categories is cemented in the ceremonial sphere. Whereas other Australian societies foreground the affinal dimension of the system in moieties that are exogamous, such as the *dhuwa/yirritja* exogamous moieties of east Arnhem Land, the Western Desert peoples foreground the generational dimension in the categories *ngananmirri* 'our generation' (lit. 'our skin') and *inyurpa* 'other generation'. By these means the Western Desert ceremonial system serves to subvert differences and potential conflict between affines, reconstruing the relation as solidary within generational moieties. This impulse to reduce social distance between affines is a recurring theme of Western Desert and neighbouring cultures in the western half of the continent, and is related to the need to establish and maintain reciprocal relationships between groups over a very large area, in order to ensure access to the widest possible options for resources in an unpredictable arid environment with a minimum of conflict. It is through relations of betrothal and marriage across vast distances that the cohesion of the Western Desert social system is achieved.

The kinship system represents an ideal, collectively rule governed society, although in practice there is considerable latitude for individual personality and personal relationships, as

well as for the range of events that vary or disrupt the normal flow of social discourse. Countering the normative pressures of the kinship system is a high value placed on personal autonomy. Where a person goes, who they associate with, and how they act and react to others are very much of their own choosing, within the constraints of public opinion on the one hand, and the possibility of physical conflict on the other. But no matter what their behaviour, individuals are virtually guaranteed the support of their close relations, so to some extent consequences of transgressions against others are avoidable. Such transgressions are kept to a minimum partly because individual Anangu internalise the norms of their society, experiencing them as personal emotional reactions to social situations rather than an externally imposed system of rules. For example, Anangu are generally not able to allow another person to suffer because they react with *ngaltutjara* 'having sympathy', or they may be unable to boldly dominate others because they experience *kunta* 'shame/embarrassment'. Of course this is little different from comparable mechanisms of socialisation in other cultures. One factor that is outstanding about Anangu is that they are able to objectively articulate the system of social rules that they also experience so subjectively.

The attitude of personal autonomy is encouraged in children, who are allowed freedoms hardly imaginable in urban culture, and are rarely punished. This attitude is underwritten by the potential economic autonomy of individuals and nuclear families who were capable of providing all their own material needs, giving them the freedom to choose whether or not to submit to larger social pressures. The economic autonomy of individuals and nuclear families was in turn integral to the processes of aggregation and dispersal of social groupings over the courses of the seasons, and the fluidity with which Anangu define their personal kinship groupings. Such group affiliations are based not only on kinship criteria, but on joint association with a set of geographical sites, and on shared life histories—their own and their parents' and grandparents'. Residential groups were traditionally very fluid, with families joining up and camping together depending where they found themselves in the course of a year's travels, their kinship and friendships, necessity or common purpose, and again separating after a time. This freedom of movement has been constrained by the years of settlement living, but frequent travel and changes of residency are still characteristic features of Anangu life.

1.1.2 The Law

The Western Desert social system is organised and regulated collectively by the elders of each kin community in the region, through ceremonial initiations and betrothals that link families in relationships of reciprocal rights and obligation, and minimise the potential for inter-family conflict. This system of ceremonies and social regulation is known throughout indigenous Australia today as the *Law*. Its basis is in religious texts, songs and ceremonies that recount the primordial actions of ancestral chthonian anthropomorphic beings who created the physical and social worlds manifest today. These original actions and events are commonly known throughout Australia as the *Dreaming* (Stanner 1966), or in Western Desert as *tjukurpa*, literally 'story'. *Tjukurpa* is not merely history, but an immensely powerful living reality that lies unmanifested behind the world of our senses and continually manifests in the cycles of nature and culture. Its ongoing manifestation is assured by the performance of religious ceremonies associated with each significant *tjukurpa* in the land, from minor rituals intended to ensure the reproduction of food species, to the major ceremonies of initiation and betrothal. Dreaming in sleep is also known as *tjukur-mananyi*,

literally 'making story', and it is believed that elders can contact the world of their own *tjukurpa* in their dreams, where they sometimes encounter hitherto unmanifested variants of songs and rituals that may be incorporated into the sacred repertoire.

Each *tjukurpa* narrative and its associated songs and ceremonies describes events in a particular location, or series of locations through which ancestor beings travelled. Each location is the estate, responsibility and spiritual well-spring of a family who is believed to originate from the *kurunpa* 'spirit' left in the location by ancestral beings whose actions created its features. The male and female elders of the family are responsible for the texts, ceremonies and sacred objects associated with their estate and its *tjukurpa*, which they hold in trust for the society as a whole. Some *tjukurpa* are highly localised, such as the *wanampi*, immense mythic water pythons that dwell in permanent water sources (known in other regions as 'rainbow serpents'). Others extend over very long stretches of country, such as the *malu* 'red kangaroo' *tjukurpa*, which extends thousands of kilometres to the northern WA coast and south to the Spencer Gulf SA, as well as to the east and the south-west. By symbolically reproducing the actions and events of the Dreaming, ceremonies ensure the cyclic reproduction of the natural and social worlds. Today each group is involved at least once or twice a year in very large gatherings for initiation and betrothal ceremonies known as the *tjilkatja* or *wati tjuta* 'many men'. These gatherings renew religious and affinal ties between groups right across the Western Desert and beyond within the *malu tjukurpa* which the *tjilkatja* follows and celebrates.

Entry into adult life in the Western Desert culture usually happens for Anangu youths around fourteen to sixteen years of age, with their initiation. At this time they are ritually seized by a brother-in-law and taken to the *tawarra* 'initiates' camp' (discussed further in Nganyintja & Rose 1991), where they live in seclusion from the community for some months. This period is followed by the first revelations of the secrets of men's religious society, accompanied by physical ordeals. This transformative experience is known throughout indigenous Australia as 'going through the Law'. For their families this is treated as the death of their child, accompanied by mourning and the use of a unique ritual language called *anitji* whose lexis is entirely different from normal speech. After the first phase of their initiation ordeals and revelations are over, they are re-presented to the community at dawn following an all-night ceremony, and are ritually smoked before being chased off into the bush again by the children. Traditionally they then continued to camp separately from their families and women until they married in their early twenties. The first stages of religious experience are the path through which a youth is accepted into the ceremonial life of adult men, and his social status is henceforth that of a *wati* 'man'. At initiation, ritual relations are established with potential in-laws which are explicitly and strictly rule governed, including relationships of obligation and total avoidance. As far as Anangu are concerned, an uninitiated male would remain a *tjitji* 'child', no matter what his age or status, since he would never have participated in the ceremonial life that defines the category *wati*. In Anangu eyes this infanthood is the status of non-Anangu men who are not initiated.

The content of *wati* ceremonies is kept entirely secret from the uninitiated, including women, children and European men, a notable achievement considering that thousands of initiated men all over the Western Desert, indeed all over Australia, are privy to the secrets at various levels. One mechanism for achieving this is the powerful bonds of solidarity and mutual respect that the *wati* ceremonies produce in participants, another is the threat of death. If someone is considered to have seriously transgressed the prohibitions of the Law, such as by revealing ceremonial secrets or otherwise endangering the collective wellbeing, they may be put to death. This may occur through spearing by an executioner designated by a

group of elders, or through magically inserting foreign objects into the transgressor's body from which he later dies. In either case the execution is accomplished by stealth, without forewarning or common knowledge. Executions by stealth are also carried out for revenge by the relatives of murdered or seriously aggrieved people. Revenge parties, known as *warmala*, were once a common feature of Western Desert life. As with the Law killings, they were the ultimate sanction against individuals transgressing the common good, complementing the internal emotional constraints against transgressing social norms discussed above. By such means the Law has enabled the smooth running of the society on a large scale, and its reproduction through deep time.

While the primary focus of the religious life of Anangu society is on the men's ceremonies, women also have a secret ceremonial life which is revealed to girls as they begin to bear children, i.e. as they become adult women, or *minyma*. (Discussions of indigenous women's social roles and religious life include Kaberry 1939, Gale 1974.) The secret ceremonial life of women and men also merges with everyday life at many points. For example, certain religious narratives are told openly to children, but their inner significance and secret stages are only revealed at initiation; several extracts from such narratives are discussed below. Women and children also participate in various stages of men's ceremonies, such as the ritual taking of a youth from the community for initiation, and his return as a *wati*. There are also ceremonies that both men and women participate in, in various stages, such as those which celebrate and ritually ensure the reproduction of animal and plant species.

1.1.3 Equality and authority

The prevailing ideology of the social system is one of egalitarian mutuality.² While age and gender are status factors within local kin communities, the ideal relation between communities and peers is one of equality. The act of initiation and betrothal is crucial for this, creating a sacrosanct and indivisible bond between distant families, maximising the opportunities for peaceful cooperative exploitation of resources and coordinated reproduction and transmission of the culture. This egalitarian reciprocity is a feature of hunter-gatherer cultures in general (and still remains an ideological trend within stratified mass societies). Whallon (1992:144) suggests that it originates in cultural adaptations to scarce resources, that may have triggered the 'Upper Palaeolithic Revolution' in social organisation and symbolic activity observed throughout Eurasia and Africa, as well as Australia, from around 45–40,000BP.

Probably many of the factors that significantly select for egalitarian organisation in human societies are related to conditions of relatively low resource density and hence relatively low population density - the conditions in fact under which major Upper Palaeolithic demographic expansions occurred...As at least roughly equal access to resources becomes of greater importance in the adaptation and survival of the population, egalitarian organisation concomitantly becomes more advantageous ...and especially so as these resources become less predictable in spatial or temporal availability.

² The term 'egalitarian mutuality' was coined by Maddock (1972) to describe the ideology of indigenous Australian cultures.

On the other hand authority within kin communities, and across the social system as a whole, is framed according to age group and gender. This inequality is legitimated on the exchange value of symbolic commodities that senior men (and senior women to a lesser extent) control, i.e. the sacred texts and performances which encode the system of land ownership and resource exchange. These texts encrypt information that is indispensable to the social and material wellbeing of the culture over great distances and deep time. Strehlow (1947) emphasises the authority this gives elders in his insider's description of central Australian *Aranda Traditions*. Myers (1986) explains it as follows:

A man's status relates directly to his capacity to take part in such reciprocal exchange. The ability to exchange in parity with men, to be 'level', depends on a social entitlement that differentiates adults from their juniors. Not surprisingly initiation and socialisation focus on increasing this capacity...Though relations between juniors and elders are expected to manifest efforts at a return, their exchanges are of a sort that can be described as transformative and hierarchical: One's parents 'grow one up', and in return one offers obedience. What is exchanged is not similar in kind or value [elders offer highly valued symbolic commodities, juniors can only reciprocate materially, D.R.], and as a result of such asymmetrical transactions there is an increase in value on the part of the junior and an obligation that can never be repaid. The resulting identity such transactions create between a senior and a junior show these kind of exchanges to be a way of regenerating cultural value through time.

The egalitarian relationship between peers is illustrated powerfully in the following image of a group of Western Desert men jointly constructing a ceremonial sand painting, Figure 1.3. They sit around the image in a circle, each contributing equally to its production. The image itself also reflects this ideology, without spatial hierarchy.



Figure 1.3: Western Desert men jointly constructing a ceremonial sand painting

Although in such discussions the authority of older men tends to be focused on, the symbolic capital of senior women is also essential to social reproduction, although usually in separate domains, and their authority integral to the social system. Australian cultures have sometimes been described as patriarchal and gerontocratic but neither of these forms of domination apply accurately, as they are defined by Weber (1968). Although the senior men of each estate group have the greater authority, they are not patriarchs in that they do not control the products of the family's labour, and control the family's material and symbolic capital, i.e. land and associated ceremonies, only in concert with other senior men and women. Ideally all adult members of the society contributed an equal share of labour and received an equal share of products. This is reflected in the expectation of children to be given what they demand, which adults do not discourage. Furthermore all adult individuals were potentially economically independent, no matter what age or gender. This is an important point, not only because the economic self-sufficiency of individuals and local families mitigated against significant power inequalities, but because it counter-balanced the normative demands of the kinship system on individuals. Gerontocracy is not an accurate label insofar as it implies a separate ruling caste which lives on the surplus product of others' labour. It is only in ceremonial contexts that senior men's and women's authority and specialisation are marked, and then only as a group. Individual elders possess greater authority in particular ceremonies celebrating sacred events within their ancestral estates, but where individual claims of authority conflict, they are subordinated to the group as a whole.

1.1.4 Kinship terms

The kinship system is realised in the socio-semantic code of the Western Desert overtly in the system of kinship terms, set out below in Table 1.1. These terms refer not simply to consanguinal (actual direct relations), but classify the whole social world as classificatory kin (see also Heath, Merlan & Rumsey 1982). They constitute the main part of the interpersonal system of VOCATION, of items by which speakers address each other. The Vocative forms of these items are presented here.

Table 1.1 clearly brings out the organising principles of the Western Desert kinship system, firstly in terms of generation and descent (agnates) or marriage (affines), secondly within agnates of age (elder or younger), and within affines of ceremonial or secular relations, and finally of gender within each of these categories. Gender has variable relevance as a classifying criterion. For example the terms *malan*, *ukari*, *kuri*, *miita* and *inkilyi* are gender neutral. This is also reflected in the personal pronoun system in which gender is not a factor. However gender is obviously criterial for addressing elder siblings, parents, parents' siblings, children, grandparents, grandchildren and spouses' parents. On the other hand the organisation by generation is basic to all categories, and is encoded in the ceremonial system, in which one's own and grandparents' generations are known as *ngananmirri* 'our skin', but one's parents' and children's generations are called *inyurpa*. The most incestuous possible sexual relation is with the opposite generation, while the ideal marriage partners are classificatory mother's brother's daughters/father's sister's sons, from distant families that have exchanged marriage partners with one's own family in previous generations. Each local family has a set of other more distant families with whom it traditionally tends to exchange spouses.

Generational time is construed as cyclical, so that not only are alternate generations considered equivalent, and the name for a child is chosen from amongst its grandparents'

generation, but a grandchild's child become one's own *kulpal* or *kuntili*; the child becomes the uncle of the man. At death one's *kurunpa* 'spirit' is considered to return either into a living person, or into the earth to await reincarnation in a new conception. For this reason, a person is considered to partake in the *kurunpa* of the place where they are conceived, and to thus have rights to this place, as well as to the ancestral homeland of one's father and mother. (A further significant place is the site where a baby's umbilical cord falls off.) Generally the names of ancestors beyond one's grandparents' parents' generation are not remembered, so that a linear view of history or genealogy does not arise. Within agnates, age differences are criterial in status inequalities, which is why for example elder siblings are distinguished by gender, but younger siblings are simply *malan*, literally 'after'. Within the category of affines, the ceremonial criterion reflects the importance of relationships established by initiation and betrothal in the *Law* ceremonies for the organisation of the society.

Table 1.1: System of kinship terms

AGNATION		GENERATION		
		same <i>ngananmirri</i>	opposite <i>inyurpa</i>	alternate <i>ngananmirri</i>
agnate	elder	<i>kuta</i> 'elder brother' <i>kangkuru</i> 'elder sister'	<i>mama</i> 'father' <i>nguntju</i> 'mother' <i>kulpal</i> 'mother's brother' <i>kuntili</i> 'father's sister'	<i>tjamu</i> 'grandfather' <i>kami</i> 'grandmother'
	younger	<i>malan</i> 'younger sibling'	<i>katja</i> 'son' <i>untalpa</i> 'daughter' <i>ukari</i> 'man's sister's or 'woman's brother's child'	<i>pakali</i> 'grandson' <i>puliwiri</i> 'granddaughter'
affine	ceremonial	<i>purka</i> 'man's brother-in-law' <i>pikatja</i> 'betrothed spouse'	<i>waputju</i> 'father and son-in-law' <i>umari</i> 'mother and son-in-law'	<i>inkilyi</i> 'father-in-law's parents' and 'son's son-in-law'
	secular	<i>kuri</i> 'spouse' (affectionate <i>miita</i>) <i>marutju</i> 'man's brother-in-law' <i>tjuwari</i> 'woman's sister-in-law'	<i>minkayi</i> 'parents and daughter-in-law'	

1.1.5 Tenor variations in kin relations

Variations in the tenor of interpersonal relations in the Western Desert are a function of the kin relationships set out in Table 1.1 above. Discussing the Mardudjara speakers of the north-western desert region, Tonkinson (1978:47) modelled tenor variation in terms of gradations of 'restraint', "between two extremes: complete avoidance and uninhibited joking".

Avoidance relationships, typified by the “WM” - “DH” affinal link [i.e. classificatory wife’s mother and daughter’s husband *umari*; but avoidance applies more to ritual “WF” - “DH” *waputju* pair in Pitjantjatjara, D.R.], necessitate the taking of rapid evasive action if either party seems likely to come within 20 or 30 yards of the other. Joking relationships, which generally obtain between certain same sex relatives, involve rowdy exchanges of sexually explicit epithets and mock abuse... Whenever an element of restraint figures in the relationship, it is accompanied by the presence of “shame-embarrassment” [Pitjantjatjara *kunta*, D.R.] between individuals so related. Restraint signals an asymmetry of status that calls for a measure of deference, respect, obedience, authority, and so forth.

This model needs elaborating, since mutual deference is characteristic of equal but distant kin relations, while authority and obedience are generally limited to age differences between siblings. A model of tenor that includes *status* and *contact* as independent variables (Martin 1992) can take such features into account. Status difference is a function of age and gender in certain contexts, particularly ceremonial, where older men exercise authority over younger men as well as women and children, but also of other contexts involving brothers or sisters. Differences in realisations of social contact are not merely a product of familiarity, but of the classification principles of the kinship system. Thus exchanges between an adult brother and sister, or between a man and his daughters, realise features of social distance even though they have known each other all their lives. On the other hand, exchanges between classificatory same-gender siblings, and between classificatory cross-cousins, may realise features of close contact such as high affect and joking behaviour, even if the interactants know each other only slightly. Given these qualifications, Tonkinson’s (1978:48) paradigm of a continuum of kin behavioural patterns is a useful overview of status and contact variables in the Western Desert kinship system. This paradigm is presented from the perspective of an initiated man in Table 1.2 below. Vocative kin terms are given, together with ethnological notation for the relationship. Most importantly these categories of contact status are elastic rather than absolute, depending on specific relationships between individuals.

Table 1.2: Tenor variables in kin relations

(after Tonkinson 1978:48)

STATUS	CONTACT				
	avoidance	distance	moderation	proximity	joking
deference	<i>waputju</i> <i>umari</i>	<i>inkilyi</i> <i>marutju</i>	<i>mama</i> <i>kulpal</i>	<i>kuta</i> <i>tjamu</i>	
equality		<i>kuntili</i> <i>mingkayi</i>	<i>nguntju</i> <i>kangkuru</i>	<i>kami</i>	<i>tjuu</i> ‘mate’ (cross-cousin)
dominance		<i>ukari</i> <i>untal</i>	<i>katja</i> <i>malan</i> (girl)	<i>kuri</i> (woman) <i>malan</i> (boy)	

1.1.6 Realisation of tenor in exchanges

While the kinship system is realised overtly in the categories of kin terms, it is realised more covertly in linguistic resources for negotiating speech roles and modal assessments in discourse. Status differences are realised by features such as deferent vocations, affirmation,

metaphors of mood and low values of force and commitment, versus dominating vocations, direct demands, high assessment values and negations. These features generally occur between older and younger kin, particularly siblings, in situations where the older person's authority is significant, such as ceremonial, economic or educational contexts. Close contact between equals is characterised by features such as direct vocations, direct demands, exclamatives, little modal assessment, stressed tones, as well as by joking, mimicry, teasing, swearing and sexual references. This applies to relationships between same-sex siblings, between men and women who are actual or potential spouses, between grandparents and grandchildren, as well as between parents and children and opposite-sex siblings up until adolescence when these relationships become more circumspect. In contrast, the principle of inter-familial equality and the need to avoid conflict means that more distant kin tend to be addressed with circumspection, ranging from expressions of mutual deference and solidarity to total avoidance in the case of certain in-law relationships. The syndrome of semantic features realising respectful social distance is formalised in Western Desert culture as a register variety called *tjalpawangkantja* 'speaking obliquely' that children begin to learn in adolescence (Lester 1989). This mutually deferent mode of address is characterised by metaphors of mood, iteration of vocation and low modality, and oblique reference to persons.

Although kin relations are clearly defined and mutually understood by all members of the community, there is scarcely less variety of interpersonal grammatical resources for delicately shading relations of status, contact and solidarity than we see in familiar stratified cultures such as those of contemporary Europe or Asia.³ However since it is a spoken language, intonation is a crucial resource in Western Desert for realising interpersonal meanings, as it also is in the spoken mode of languages such as English. The following exchange [1:1] illustrates phonological and lexicogrammatical realisations of status difference between a younger sibling (M for *malan*) and older sibling (K for *kuta*) who are preparing to camp for the night. Major pitch movements are indicated by lines above elements receiving this tonic focus, including in the exchange [1:1] below: low fall —; rise —; high fall —; rise-fall-rise —. Boundaries between tone groups are indicated by //.

[1:1]				
M	<i>kuta</i>	// <i>ngayulu</i>	<i>nyanga-ngka</i>	<i>ngari</i>
	older.brother,	I	at here	lie-!
	Vocative			
	Big brother, may I sleep here?			
K	<i>wiya</i>	<i>ngura</i>	<i>nyaratja</i>	// <i>tjitji</i> <i>ma-ngari</i>
	no,	yonder	place	child,
	Adjunct			Vocative
	No, over there child, sleep apart!			

In exchange [1:1] the younger brother (M) prefaces his request with the respectful Vocative *kuta* 'older brother', spoken on a deferent low falling tone. This is followed with an imperative clause in first person, realising speaker's inclination to 'lie here'. However, since it

³ Such interpersonal resources for grading status, contact and solidarity in the stratified cultures of the Eurasian culture bloc include the proliferation of honorifics in Japanese (Hori 1995, Teruya in press, in press), interpersonal particles in Cantonese (Halliday 1996b, in press), enclitic particles in Tagalog (Martin 1988, in press), or a large range of modal items in English (Halliday 1994a:354–367, Martin in press).

is spoken on a rising tone, it becomes a yes-no inquiry of the addressee's inclination, i.e. a deferent request, 'may I lie here?'. The older brother (K) responds with a flat *wiya* 'no', followed by a direct contradictory command 'lie apart over there!', including the dominating Vocative *tjitji* 'child'. The use of this Vocative drives home the fundamental status distinction in Anangu society between initiated men and the uninitiated, particularly poignant to an uninitiated youth who must defer to his elder. This command is stressed with a high falling tone on the location *nyaratja* 'over there', and a rise-fall-rise on the process *ma-ngari* 'lie away'. The rise-fall-rise functions similarly to a tagged imperative in English 'lie apart over there, will you!', stressing the speaker's exasperation.

The rich texture of interpersonal meanings in this brief exchange is realised by complex interactions of various features. To begin with, a minimal grammatics would recognise an 'imperative' formal structure of the verbs in both clauses, in this case consisting of uninflected verbs (like the imperative verb form in other languages such as English). The question for a semantically motivated grammatics is what does this imperative form mean, given that the first move in the exchange is a question and the response is a command. A systemic model enables us to identify a generalised grammatical choice in Western Desert for realising the interpersonal meaning of 'proposals', i.e. exchanges of goods and services, by imperative mood, in contrast to the option for realising 'propositions' exchanging information, by indicative mood (Halliday 1994a, Martin 1992, Matthiessen 1995). Within the generalised speech function of proposal, a further step in delicacy enables us to identify a contrast between proposals for the speaker to act, realising inclination [M], and proposals for others to act, realising obligation [K]. These semantic categories are realised in the grammar by contrasts in imperative mood person, known traditionally as 'oblativ' and 'jussiv' respectively. Categories like 'imperative', 'oblativ' and 'jussiv' are *definition criteria* in a systemic functional grammatics (see Hasan & Fries 1995:xiii–xx), they do not simply denote formal properties of grammatical structures, but have semantic values such as proposal: offer, that are meaningful because they contrast with other semantic values such as proposal: command. As Martin (1992:32) explains,

Semantically oriented labels of this kind highlight the meaning of the grammatical terms (in this case, their typical function in dialogue) and are used throughout Halliday (1994a) to focus on the grammar as a functionally organised meaning making resource (rather than a syntax, or set of forms).

This contrast between speech functions is a local example of confronting one part of the grammar with another to interpret the semantic code: meaning is not an intrinsic property of isolated structural features like words or morphemes, but of multiple relationships of similarity and difference between elements in systems, of *valeur* in de Saussure's terms (1966). The *recognition criteria* for these semantic values are relationships between features in structures. For proposals these criteria include at least the inflectional morphology of the verb realising mood, and the nominal element realising mood person. But as we have seen, a reversal in tone contour can turn a proposal expressing speaker's inclination to a proposition interrogating addressee's inclination, so tone is clearly a crucial criterion for recognising distinctions in interpersonal meaning in Western Desert. Note that in English this reversal takes place in the lexicogrammar of indicative clauses, in the ordering of Subject and Finite, from 'I may lie here' to 'may I lie here?' (Halliday 1994a:71–78), although it also takes place in the phonology, from falling to rising tone. (Halliday 1967a reports finding few English yes-no questions that were not spoken on a rising tone). In both languages, tone is also a crucial resource for specifying types of interpersonal meaning realised in the grammar,

distinguishing for example, a neutral command from an insistent command. What differs between the languages is the range of more delicate options available and the tones that realise them, so, for example, insistent commands are realised in English by rising-falling tone, and in Western Desert by high falling tone as in [1:1K], although in French this tone is also unmarked for element (qu-) questions (Cafferel in press).

However these contrasts in meaning only make sense in the social context in which they are employed by speakers. Interpersonal meaning is by definition only sensible in the context of social interaction, of exchanges between cultural subjects such as the two brothers of exchange [1:1]. These social relationships do not take place outside of language, they are brought into being by the kinds of interpersonal meanings we have seen here—by expressions of deference and domination, of inclination, interrogation and negation in response, of obligation and compliance. Grammatical descriptions that are focused on the forms of structural constituents tend to marginalise interpersonal meanings, by ignoring intonation, by dispersing interpersonal wordings across various formal categories, and attempting to gloss each lexicogrammatical item in experiential terms. By observing the rich diversity of interpersonal meanings realised by the interaction of lexicogrammatical and phonological choices, and how these meanings are employed in various types of exchange, a functional analysis makes it possible to systematically relate the culture's grammar to its contexts of social interaction. The full range of such linguistic reactances constitutes the interpersonal meaning potential of the code.

1.2 Material production: variations in field

While relations of production in Western Desert culture are today still governed by the system of reciprocal rights and obligations between and within families, the traditional means of economic production is now practised only intermittently. However, knowledge of traditional practices is still strong, as many of the current generation of elders grew up before or soon after settlement. Until the last two or three generations, economic production was entirely based on seasonally nomadic hunting and food gathering activities, centred on a family's ancestral home area containing a relatively permanent water source. The climatic conditions of the Western Desert are extremely arid, with an irregular, unreliable annual rainfall of less than 200 mm, and summer temperatures consistently over 40°C.⁴ Small family groups would tend to stay in their home territories during the summer months, and start travelling after the first autumn rains, meeting up with related groups and conducting large ceremonial gatherings as rainfall permitted. The general types of environment available to Western Desert peoples is diagrammed in Figure 1.4. These include *puli* 'hills', *pana* 'fertile soils around hills', *kurku* 'mulga scrubs', *tali* 'sand ridges', *karu* 'creeks' and *pantu* 'salt lakes'.

⁴ Veth (1996) reports that

archaeological research from the Western Desert indicates a human presence before 24,000 years ago... During the last glacial maximum major demographic restructuring occurred, most likely due to intensified aridity. Large areas of the Western Desert appear to have been used far less intensively during this time until gradual amelioration in climate was experienced from the early to mid-Holocene... There is then ubiquitous evidence for uniform desert occupation from 5,000 to 3,000 years ago, with a marked increase from 1,400 years ago.

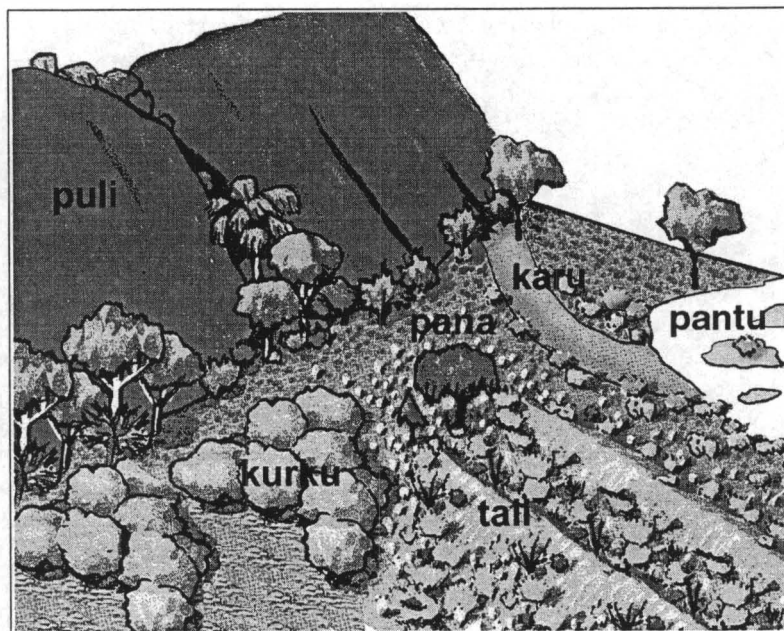


Figure 1.4: Types of Western Desert environment

This variety of environment types was available to groups whose estates, or those of their kin, included the low ranges that occur in many regions of the desert. As well as supporting a higher yield of animal and vegetable resources than the sandplains, these ranges tended to receive slightly higher rainfall and contain more permanent water sources. Other groups, however, relied entirely on the resources of the sandplains and ridges of the Great Victoria, Great Sandy and Gibson Deserts. Although these regions also included diverse vegetation types, water scarcity was the major factor restricting population density. The scale of these vast regions is illustrated in Figure 1.5.

Whallon (1992) terms such a geographically dispersed production regime a 'separation of labour', with each group producing by identical means, in similar but separate environments. As with the division of labour in larger-scale societies, the separate labour system in Western Desert can be seen as an integrated means of production. However while separate labour was the means by which each group contributed to the production system of the culture as a whole, within each group there was a division of labour strongly specialised by gender. The men in the group typically set out early each morning from a camp to cover long distances after large game, while the women moved in a circular pattern, exploiting vegetable and small animal resources, much of which was obtained by digging. This contrast in patterns of movement of men and women's production is another layer of meaning symbolised by the contrast of circles (women) and straight lines (men) in Western Desert paintings. Children would tend to accompany the women, collecting food themselves and eating as they moved about, as well as learning from their elder sisters, mothers, aunts and grandmothers. Youths accompanied the men when they were considered old enough to keep up. Where possible young children might stay in the camp with aged grandparents, who consequently tend to have a very close relationship, redounding with the kinship principle that categorises grandparents and grandchildren in the same moiety. The products of male and female labour would be shared in camp at the end of the day, with women's contribution the most reliable, except in times of harsh drought when people might survive on game alone. Men were wholly

responsible for the cooking and distribution of large game, while women cooked a variety of cakes and other dishes prepared from seeds and fruits. This division of labour between men and women is exemplified in the narrative extract from the *Piltati* myth, presented here as Text [1:2].



Figure 1.5: Sand dunes in the Great Victoria Desert
(from Shephard 1995)

Text [1:2] *Piltati* extract, narrated by Nganyintja

- 1 *wati kutjara kunyu kuta-rara nyina-ngi*
two men it's said brother-pair were-sitting
It's said that there were two men who were brothers.
- 2 *kungkawara kutjara ø alti-ngu, kangkuru-rara*
two young women (they) married sister-pair
They married two young women who were sisters.
- 3 *wati kutjara pula a-nu malu-ku*
they2 two men went for kangaroos
Those two men went hunting for kangaroos.
- 4 *kuka kanyila-ku ø tati-nu puli-ngka*
for wallaby game (they) climbed up in the hills
For wallabies, that is, they climbed up in the hills,
- +5 *munu pula kuka kanyila kati-ngu*
and-SM they2 wallaby game brought back
and they brought back wallaby meat to the camp.

- +6 *ka* *pula* *mai-ku* *tjaru-ukali-ngu*
 and-SW they2 for vegetable food descended down
 Meanwhile the other two went down to the plain, looking for vegetable foods,
- +7 *munu* *pula* *mai ili* *ura-ningi*
 and-SM they2 fig food were collecting
 and were collecting wild figs.
- +8 *munu* *pula* *mai* β *kati-ra* α *u-ngu* *wati kutjara*
 and they2 food bringing gave to the two men
 Then they brought the vegetable foods back and shared them with the two men.

This story is Nganyintja's own *tjukurpa*, inherited through her father, and associated with the sacred waterhole of *Piltati*, of whom she is a senior custodian. It is significant that the two brothers called the sisters to marry them, *altingu*, since the ideal practice is for women to come and live in their husband's estate. This is one of the underlying messages of the *Piltati* myth, in which the brothers transform themselves into giant mythic *wanampi* serpents and dive into the ground at *Piltati*, and swallow their wives who are also transformed into *wanampi*. However, local residence is very flexible in the desert and Nganyintja's own husband Ilyatjari came to live in her family estate. The extract then goes on to describe how the men ascend the hills for *kanyila* wallabies, while the women descend to the plains to collect vegetable foods such as *ili* wild figs, and the exchange that occurs back in camp at the end of the day. This division of labour between men and women is certainly the material basis for the gender divide in the religious system. It is further symbolised in the iconography of the Western Desert painting tradition, in which men and women are symbolised by the tools that accompany them—spears, *kulata*, for men and digging sticks, *wana*, and wooden dishes, *wira*, for women.

As they reached the vicinity of a water source, the group would make camp some distance from it (so as not to pollute it or scare game attracted to it), and the women would carry water to the camp in their dishes. Camps would typically last from three to five days before the local resources began to be depleted, and the group moved on to the next water source. Camps consisted materially of hearths within windbreaks or brush shelters, with separate hearths for couples or nuclear families, widows and other women, or teenage male initiates and young men who camped some distance from the families in the *tawarra*. In large gatherings for ceremonies, each family would camp behind a brush windbreak, or *yuu*, including one or more hearths. The family camps are arranged in the direction that their homelands lie, in proportion to the centre of the encampment. Such gatherings allowed large-scale hunting of game with groups of men acting in specialised roles as beaters or spearers, which in turn allowed men more time for ceremonies and their preparation, while women worked together gathering and preparing seed cakes used for food and as ritual gifts.

1.2.1 *Field variation*

The general features of the dispersed but homogeneous system of production and exchange in the Western Desert emerge as we explore the ideational dimension of the code, including the general models of experience it encodes, and the logical and taxonomic organisation of experiential meanings in discourse.

1.2.1.1 Taxonomic perspective on field

The fields of Western Desert experience can be mapped as a system of choices, at the most general between 'traditional' and 'contemporary' contexts (see Martin's 1992 map of activities in the field of linguistics). I will restrict this brief overview to pre-colonial fields, which Tonkinson (1978:29) characterises eloquently as "the rhythm of desert life (which) is one of irregularly alternating aggregation and dispersal of social groups". So the most general option in traditional nomadic life was between coming together in large groups when and where rainfall permitted, and separating again into small bands based on extended or nuclear families. I have attempted to model some features of these fundamental modes of desert experience, as Table 1.3. The synopsis is not intended to be exhaustive, but as a heuristic for potential identification and analysis of fields of activity (see especially Tonkinson 1978, Myers 1986 for extensive descriptions of Western Desert activities).

It can be seen from Table 1.3 that major criteria for classifying fields in Western Desert include sacred and secular activities, and within each of these, women's and men's domains. Women and men generally produce separately, and generally perform ceremonies separately. This proportionality is predictable since the categories of religious life, in the terms first developed by Durkheim (1912), are projected by the categories of social life. The classification by gender is not invariable but becomes stronger the more sacred and 'dangerous' the ceremonial context (discussed by Mary Douglas 1966 in terms of 'purity and danger'). Thus the most sacred women's and men's ceremonies are held in total secrecy from the opposite sex. This applies most strongly to the sacred men's ceremonies known as *tjilkatja*, in which initiation and betrothal take place, and which consequently form the basis for the system of social organisation at the level of culture. Nevertheless the women have crucial roles at certain stages of these long and complex ceremonial cycles, but they are carefully managed with a great precision in order to avoid any transgressions of ritual boundaries.

The activities set out in Table 1.3 are first-order fields: most of them consist of material activities but some are semiotic activities that project second-order fields, including of course ceremonial performances and storytelling whose subject matter is other fields, sacred and secular. But in another sense for Anangu all activities project second-order fields, including tracking, for example, which involves reading activity sequences from patterns of signs in the ground, as well as any cultural activities that project the sacred *tjukurpa* from which the patterns of all cultural activities flow. Some activities will do so more overtly, such as toolmaking, hunting and cooking of game, the procedures for which are laid down in traditional religious Law. A general feature of Australian cultures is the conflation of the semiotic and the material; as in other pre-modern cultures it is believed that the use of words, whether they are names, registers, spells or ceremonies, can have a causal effect on events in the material and social world (see Stanner 1937 on the uses of names, Rumsey 1990 on the relation of wording and referents). The range of items of material technology in Western Desert culture were limited by the demands of travelling, but the production of many of them was meticulously prescribed by the sacred traditions of the *tjukurpa*. In this sense even material activities like tool production signified the symbolic religious basis of material reality.

Table 1.3: Some general fields in traditional desert life

family group	men's work	hunting cooking toolmaking
	women's work	gathering preparing and cooking toolmaking
	general work	shifting camp construction of shelters child care and teaching healing
	ceremonies	local increase ceremonies funerals
	recreation	secular performances conversation storytelling children's games
	fights	women's/men's
gatherings	men's ceremonies	secret performances preparing and waiting women's participation and supportive work
	women's ceremonies	secret performances preparing and waiting
	secular activities	travelling between ceremonial sites encampments group hunting and gathering open performances fights: women's/men's
	revenge expeditions	men fight/women encourage

Each of these general fields are construed in language as:

- i) activity sequences
- ii) people involved in them
- iii) places that are each located in an implicit map of territory, and
- iv) types of things.

Each activity sequence involves particular people and places, as well as generalised *participant* types, such as species of animals and plants and their parts. So we can explore the fields of experience construed in the language from the perspective of activity sequences, and the types of figures that constitute them, or from the perspective of taxonomies of people, things and places.

1.2.1.2 Types of things and processes

We have already looked at a taxonomy of types of people, or rather of relations between people, in the kinship system. Other kinds of taxonomy are in the lexical items that specify types of things. The organisation of such taxonomies are not made explicit in Western Desert with layers of general terms. Rather the tendency in Western Desert is to name each natural species, cultural object or type of kin relation, with a few general terms such as *kuka* 'game', *punu* 'wooden object' or *walytja* 'kin', and to leave intermediate classifications implicit. This contrasts with a tendency in languages of large-scale internally diverse cultures such as English, to specify entities by sub-classifying them in nominal groups. We have already seen these contrasting tendencies in the system of kin terms—where Western Desert classifies each relation with a one-word term, English often uses several to sub-classify them. The following Table 1.4 exemplifies this pattern for types of things, in this case the types of grass identified in Western Desert, mostly as single words, whereas the English common terms that gloss them are generally classified both generally and specifically. Western Desert has no general term that covers all types of grasses.

Table 1.4: Types of things: grasses

<i>ilintji</i>	'tall grass'
<i>ukiri</i>	'green grass'
<i>ipiri</i>	'curly-wire grass'
<i>kutanu</i>	'greybeard grass'
<i>taa-taa</i>	'woolybutt grass'
<i>tjanpi</i>	'bunch panic grass'
<i>tjanpi</i>	'spinifex grass'

Another noteworthy feature is the context dependency of many terms, such as *tjanpi* which refers to two very different types of grass, but which are clearly distinguishable in the context in which the term is used. Likewise *punu* can refer to a tree, wood or an artefact, *walytja* can mean a relation or oneself, and *kuka* can mean either game or meat.¹

There are many sets of lexical items denoting entities specific to Western Desert culture and its natural environment. However, these entities participate in figures that constitute the kinds of fields of activity set out above in Table 1.3. We can exemplify how the culture is construed as taxonomies of activity types, with the field of men's work. The activities specified by lexical items in this field are set out in Table 1.5 below.

¹ This functional diversity at the level of the word should alert us to the potential pitfalls of attempting to assign a single gloss to lexicogrammatical items out of context of the whole structures in which they function. This has been a problem to date with some Australianist descriptions, which attempt to assign single glosses to decontextualised morphemes, discussed below in the reviews in Appendix 2. It is this decontextualising tendency that underlies Wiezbicka's hypothesis of 'semantic primitives' immanent in individual morphemes (e.g. Goddard & Wiezbicka 1994).

Table 1.5: Terms for men's work *tjatu*

toolmaking <i>palyani</i>	spearmaking	<i>watuni</i> 'straightening (spear vine) <i>tjukaruruni</i> 'straightening spear' <i>watatjunanyi</i> 'affixing spearhead' <i>mukultjunanyi</i> 'affixing barb on spear or spear thrower' <i>karpini</i> 'binding (with sinews)'
	general	<i>katani</i> 'cutting (e.g. tree or spear vine) <i>witani</i> 'singeing (wood) in flames' <i>rurupunganyi</i> 'rubbing off (bark)' <i>atuni</i> 'adzing' <i>tjalkanymananyi</i> 'shaping' <i>upani</i> 'trimming' <i>wiruni</i> 'finishing' <i>kuti-kutini</i> 'shaping (resin) into a ball' <i>kuntji-kuntjini</i> 'smearing implement with ochre or grease'
hunting <i>panyani</i>	finding	<i>nyakukatinyi</i> 'watching out for game' <i>ngurilkatinyi</i> 'searching for game' <i>urakatinyi</i> 'stalking game' <i>patikutuni</i> 'cornering game' <i>tultjarukatinyi</i> '(game) stopping running' <i>tjtatutjunanyi</i> 'surrounding game to spear it'
	spearfishing	<i>tjutini</i> 'loading spear into spearthrower' <i>wakuni</i> 'raising weapon to strike' <i>ulkuni</i> 'taking aim' <i>tiwapunganyi</i> 'spear glancing off game'
	killing	<i>wakani</i> 'piercing (game)' <i>kultuni</i> 'spearfishing through' <i>atuni</i> 'hitting (game) with stone' <i>kunakuluni</i> 'beating (game to kill it)' <i>nguntinkatinyi</i> 'breaking neck (of game)'
	carrying	<i>tipintjunanyi</i> 'sewing up belly of game with a stick after gutting' <i>nyutini</i> 'binding game for carrying' <i>alintjananyi</i> 'lifting (game) onto shoulders' <i>purini</i> 'skewering meat for carrying'
cooking <i>pauni</i>	preparing ground oven	<i>tjarapunganyi</i> 'digging trench for roasting' <i>purulutjunanyi</i> 'heaping wood for fire' <i>waru kutjani</i> 'lighting fire' <i>kurkaltjunanyi</i> 'building up fire'
	preparing game	<i>witani</i> 'singeing (game) in flames' <i>putipunganyi</i> 'scraping singed fur off game' <i>ulutjunanyi</i> 'dislocating legs of game for cooking' <i>takul-takulkatinyi</i> 'placing game into roasting trench' <i>alytjtijunanyi</i> 'raking aside (brands from roasted game)'
	butchering	<i>itjilini</i> 'butchering meat' <i>parilmananyi</i> 'cutting off quarter of cooked meat' <i>tjarani</i> 'dividing up (meat)' <i>intjani</i> 'sharing out (cuts of meat)'

The most general classes of activity, of 'toolmaking', 'hunting' and 'cooking', are named in the language, but the intermediate classes are not. Some of these verbs can apply to activities other than those here, so their specific domain here is enclosed in brackets, but most are specific to these fields. In this respect the field of men's work is comparable to an occupational field in other languages, in which there is a mix of field-specific and general terms. What is striking about the taxonomy here is the rich diversity of terms that are unique to Western Desert culture, or at least perhaps to hunting-gathering cultures in general. Few of these are common terms in English, as the length of the English glosses attests. Examples from the field of spearmaking include *watatjunanyi* 'affixing spearhead' and *mukultjunanyi* 'affixing barb to spearhead'. These items are illustrated in Figure 1.6 below. It is also noteworthy how many processes are denoted by a single verb in Western Desert, but by verb plus noun in English, illustrating the tendency in Western Desert for construing experience as unfolding flux. We should note that while the language does have an extensive verbal lexis, and realises many activities with lexical verbs that are realised in English as noun plus general verb (particularly sounds, which are construed as processes rather than things), there is also a roughly equal number of nouns realising specific natural and cultural entities. A more significant difference with written languages such as English is the very small set of abstract nouns, such as *wangka* 'speech', *Anangu-ku tjaka* 'the culture/habits of Anangu'. While weak nominalisation of verbs is possible in Western Desert, it is a minor feature compared with the vast abstract lexis created in English as it developed a written mode, using lexical and morphological resources borrowed from Latin and Greek. (This point is discussed further below in §1.4.2 under Codal variation.)

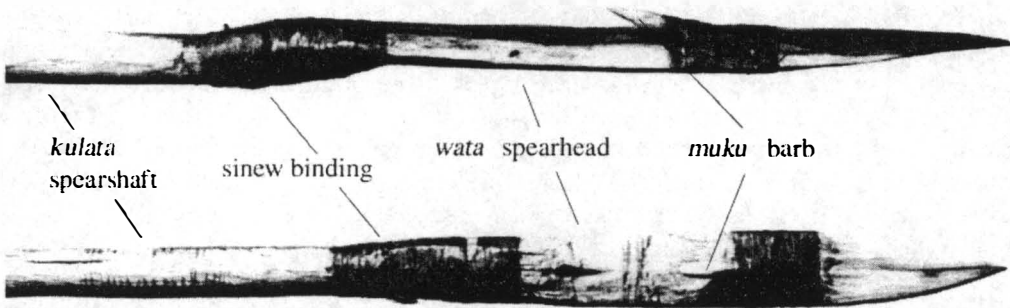


Figure 1.6: Western Desert spearhead *wata*

1.2.1.3 Some categories of time in Western Desert processes

Another perspective from which to explore the fields of experience in Western Desert culture, is from the grammatical rather than the lexical end of the lexicogrammatical continuum. This will be the main perspective employed in the survey here, as it gives us the general outline of the model of experience construed in the language, within which specific subsets are construed lexically. Still focusing on word rank, we can look briefly at how the time of processes unfolding is construed in verbs, by suffixes realising tense and aspect. There are five options in TENSE, and three in ASPECT, set out in Table 1.6.

Table 1.6: Options in TENSE and ASPECT

system	feature	example	gloss
TENSE	future	<i>tati-lku</i>	'will climb'
	present	<i>tati-ni</i>	'is climbing'
	past	<i>tati-nu</i>	'did climb'
	past durative	<i>tati-ningi</i>	'was climbing'
	habitual	<i>tati-lpai</i>	'does climb'
ASPECT	irrealis	<i>tati-ntjikitja</i>	'to climb'
	realis	<i>tati-ra</i>	'climbing'
	completed	<i>tati-ntjanu</i>	'having climbed'

Tense is an option for finite processes in indicative clauses. It indicates the time of an event in relation to the time of speaking, grounding the event time in the context of speaking. Aspect is an option for non-finite processes that are dependent on finite processes, either in a hypotactic ('subordinating') clause complex, or in a verb complex within a single clause. It indicates the time of an event in relation to the primary process of the clause or verb complex.

The model of unfolding process construed in this set of options is most generally of events now, events past and events yet to come. This unidirectionality of time, from the past through the present to the future, is immanent in both the tense options of present, past and future; and in the aspect options of realis, which embraces events concurrent with or before the primary event (i.e. aspect does not specify present or past time); irrealis, which refers to events that will follow the primary event; and completed, which does specify past time in relation to the main event. These options are comparable with those of primary tense and aspect in English: past, present, future, perfective, imperfective. However, the deployment of these options in discourse becomes more complex. For example, future tense is typically employed only when the anticipated event is less than certain, otherwise present tense is typically used to anticipate events, as in English 'I am going'; this contrast is illustrated in context in Text [4:3] in Chapter 4. Present tense approximates the semantic functions of present-in-present in English material processes, as suggested by the gloss 'is climbing', or of simple present tense in relational processes, e.g. 'lives', in which the duration of the process is indeterminate. Present tense is also frequently used for mental processes in the context of past events, illustrated in example [5:65], as present tense is frequently used for past events in English stories.

Secondly, the duration of unfolding process here is construed as either punctiliar or durative. Punctiliar events include past, present and future tense, and irrealis and completed aspect. In contrast to durative processes, punctiliar events are construed as occurring at a particular point in time. Durative processes include past durative, habitual tense and realis aspect. They are construed as unfolding over an extended duration. Past durative is typically used to temporalise past time in relational clauses, which are otherwise construed as persistent without a verb, discussed under relations in Chapter 5. Habitual tense is used for persistent processes in the present or past, which correlate with English 'Vs/does V' or 'used to V' respectively; the time is apparent from the clausal context. Since doing something persistently inherently means one can do it, habitual tense may also indicate ability, discussed under indicative mood options in Chapter 4. As a result, this form may also function to indicate a person's occupation, e.g. *wali playa-lpai* 'builds houses', i.e. a carpenter, shown below in §2.6.4.3 under transcategorisation. Realis non-finite processes are iterated in

circumstances of Duration to construe extended time. In imperative clauses there is also an option between punctiliar and durative; direct imperatives tend to demand punctiliar processes, 'do!', while oblique ('polite') imperatives may also be used to demand durative processes, 'keep doing!'. These temporal features of mood, tense and aspect options are summarised in Table 1.7 below.

Table 1.7: Temporal duration of mood, tense and aspect options

		punctiliar	durative
INDICATIVE	past tense	past events	past relations
	present tense	past mental processes	
	future tense	uncertain events	
	habitual tense		past/present events
IMPERATIVE		direct orientation	oblique orientation
ASPECT		irrealis; completed	realis

In addition to these options, the temporal dimension of processes may also be neutralised, with a 'nominal' suffix. This is used if the process qualifies a thing or person, e.g. *wati kuwari pitja-ntja* 'the men coming now' (*wati* = man; *kuwari* = now; *pitja* = come). On the other hand, things and qualities can be made to unfold, by means of the inceptive suffix, *-ri* 'becoming', e.g. *wiru-ri-ngu* 'did become good' (*wiru* = good), i.e. 'improved'. Finally the phase of processes' unfolding can be expressed by a verb complex that expresses completion, e.g. *ngalku-la wiya-ri-ngu* 'did finish eating' (*ngalku* = eat; *wiya* = not), or the time of its completion, e.g. *wangka-ra munga-ri-ngu* 'talking became night' (*wangka* = talk; *munga* = night), i.e. 'talked until nightfall'.

We can see from this brief discussion that the word rank systems of tense, aspect and phase construe a multi-dimensional model of time in which processes unfold, or persist. Features of this meaning space include directionality of time, duration of processes, phase of their unfolding, the qualities they ascribe to the things and people involved in them, and the inception of things and qualities as processes. These temporal dimensions of processes interact with other experiential features at higher ranks, such the type of process—material, mental or relational, and the mood of the clause—imperative or indicative. Yet this elaborate potential of processes for construing experience as varieties of unfolding flux is only the beginning; the potential continues to expand as we move up to the levels of the clause and of discourse.

1.2.1.4 Types of activity sequences

So far we have looked at the construal of experience as flux, in systems of lexis, and at word rank in the grammar of verbal affixes. These aspects of the grammatico-semantic system are relatively overt, in that they are realised by discrete words and morphemes that can be easily identified in a formalist analysis (and so be decontextualised and glossed—the words in a dictionary and the morphemes in a grammar). As we move up to clause rank, patterns of construal in the grammar tend to be more covert, but equally reflect the cultural context in which they have evolved. For example, the influence of the hunter-gatherer means of production may be seen in the ways that activity sequences and temporal duration of events are represented in the grammar. Activity sequences are realised by complexes of clauses that are either:

- i) paratactic series of finite clauses added to each other (indicated by numbering 1+2+3), or
- ii) hypotactic series of dependent clauses concluding with a finite event (indicated by Greek lettering $\delta\gamma\beta\alpha$).

Hypotactic complexes may also be nested in paratactic ones. These options are illustrated in Text extract [1:3], about the hunting activities of two women.

[1:3]

- 1 *pula* *pararitja-kutu* *a-nu*
 they2 to a distant place did go
 They went to a distant place,
- +2 *munu pula* *ma-antjakari-ngu*
 and they2 did camp away
 and they camped away for the night.
- +3 δ *munu pula* *ngarin-tjanu-ngku*
 and they2 after sleeping
 Then after sleeping,
- γ *pungku-la*
 striking
 hunting some more,
- β *antjakaringku-la*
 camping out
 and camping out again,
- α *wirkati-ngu*
 did finally arrive
 they finally arrived.

Each of the dependent processes in the hypotactic series nested in +3 constitutes a separate clause, since they involve different participants. While each process involves the two women, the effective process in γ *pungku-la* 'killing' also implicitly involves a second participant that is killed. Each process also implicitly takes place in a different location, 'killing' in one place, 'camping out' in another, and 'finally arriving' somewhere else.

Hypotactic clause series represent a sequence of connected processes that are partially discrete, but oriented towards completion in the final finite process. In discourse they alternate with the other option, an additive sequence of finite clauses, exemplified in Text extract [1:3] as 1+2+3, which construes each event as wholly discrete, and added to the preceding event rather than heading towards a goal. Recursive series of dependent processes, exemplified in Text extract [1:3] as +3 $\delta\gamma\beta\alpha$ have been widely noted for Australian and Papuan, as well as African and American languages (e.g. Gleason 1968, Longacre 1972, Wurm 1975, Martin 1983, Foley & Olson 1985, Austin 1988, Roberts 1988). This feature is often described as either 'clause-chaining' or 'verb-serialising' with the dependent clauses given the label 'medial' or 'serial' verb. On the basis of this syndrome, such languages have sometimes been labelled exotically as 'clause-chaining languages'. However the resources employed here are similar to those available for recursive clause complexing in English. Observed from the perspective of meaning rather than of form, so-called 'medial' or 'serial' verbs are not as exotic as they might seem; they are simply non-finite processes that function as they can also do in English hypotactic clause complexes (see Halliday 1994a:238–239,

Martin 1988). What is significant about the syndrome of recursive hypotactic clause 'chaining' is not so much that it happens in one group of languages and not in another, but that it is a favoured option for representing ongoing activity sequences in spoken languages such as Western Desert, as well as in the spoken mode of English. It may appear exotic from the perspective of formal linguistic models because their descriptive categories originate in the analysis of written sentences rather than spoken texts (Halliday 1989).

1.2.1.5 Elements of processes

A clause represents a quantum of experience as process or relation and, like other languages, Western Desert further analyses such figures into the participants involved in the process and circumstances associated with it. These elements of figures are themselves realised by groups of words—nominal, adverbial or verbal, that are functional elements of each word group, realising meanings such as types of things, qualities and their intensities, number, tense, phase and so on. In general there is a great deal of correspondence between these categories of experience and those construed in familiar languages such as English. However, one interesting example of difference is in circumstances of temporal Duration which, as we have seen above, are realised in Western Desert by series of non-finite verbs, e.g. *anku-la anku-la anku-la* 'going going going'. This contrasts with the more frequent nominal realisation of Duration in languages such as English, as nominal groups or prepositional phrases, e.g. 'for a very long time/over many many days/for a month and a half...'. The following Western Desert clause [1:4] below represents a single process of 'travelling', realised by a finite verb *a-nangi* 'was going', but whose duration in time is strung out through a series of circumstances of Quality (realised adverbially), Duration (realised verbally) and Place (realised nominally).²

[1:4]	<i>ka</i>	<i>paluru</i>	<i>a-nangi</i>	<i>alatjitu</i>	<i>tiutjara</i>	<i>anku-la anku-la anku-la</i>
	and	s/he	was going	utterly	continually	going going going
		Medium	Process	Quality	Quality	Duration
	<i>ngura nyara wanu</i>	<i>wati-pitja-la wati-pitja-la wati-pitja-la</i>				
	through yonder place	crossing crossing crossing				
	Place	Duration				
	<i>anku-la anku-la anku-layii</i>					
	going going going					
	Duration					

This is a particularly extended example, as the journey recounted in this fragment of the *Kipara* myth was from central Australia to the Southern Ocean, but the feature of serial verbal Duration is typical. It is in such semantic regions as construal of time, that Australian and certain other languages differ most clearly from what Halliday (1993) calls 'settlement languages', since as Whorf (1938) observed, they tend to represent subjective experience iconically, as 'time becoming later', while languages that Whorf called *Standard Average European* 'objectify' it as an abstract thing. However as Halliday (1993:10) points out,

² Note in example [1:4] the extended final vowel *anku-layii* further extending the temporal duration by the realisational strategy of phonaesthesia.

...a settlement grammar has evolved through a non-settlement grammar, but not vice versa. Hence...the different models of reality coexist within one language, features of the earlier phase persisting in very much the same way as features of the earlier material conditions continue to be part of the total experience.

So 'serial' construals of temporal duration are still a feature of languages such as English, e.g. 'they kept going and going and going', but they are less frequent than the dominant 'objectifying' nominal construals. That is, the probabilities of their occurrence in adult discourse are lower than that of duration as thing (Matthiessen 1991a surveys construals of time in English). On the other hand, we could also point to a common mode of stretching duration by intensifying it, either through iteration 'going going going/many many days', or through intensifying epithets in nominal groups 'a very long time'. Mühlhäusler (1976) identifies the intensifying function of iteration in various grammatical environments, and notes the same resource for intensifying duration by iteration in Tok Pisin as we see in Western Desert.

1.2.1.6 Some other experiential syndromes in Western Desert

Representations of duration are one aspect of more general syndromes of grammatical patterning that are illuminated by confronting Australian with European codes. A related region is in resources for numeration and measure within nominal groups. These resources in English enable units of time to be measured and exactly quantified by the same set of metaphors that transforms space into a quantifiable object (e.g. 24 hours/8 kilometres per hour/40 acres of wheat). Such metaphors enable a culture based on exchange, appropriation and accumulation of material goods to construe all of reality as potentially quantifiable, including products, land and labour time. In stratified expansionary cultures, time in general comes to be construed as an accretion of units, on the model of genealogies of ruling families, one dimension of the accumulation of material value.³ As temporal duration is intensified nominally in such cultures, so counting is a way of intensifying quantity—a measure of material accumulation as social status that experientialises interpersonal value.⁴

Numeration in Western Desert nominal groups, on the other hand, is restricted to three terms, *kutju* 'single', *kutjara* 'dual', and *tjuta* 'plural' (with the option for amplifying or diminishing plurality). This is a feature of a culture for which material accumulation is not an option, and so exact quantification of goods is irrelevant. This is also comparable with numeration in personal pronoun groups, which contrasts an individual such as *ngayulu* 'I', with a pair such as *ngali* 'we2', and a collective such as *nganana* 'we3'. The close parallel between numeration of things and people exemplifies the grounding of a culture's ideational theory of objects, time and space, not only in subjective experience of unfolding material reality, but in its categories of social interaction (Durkheim 1912). For Anangu these categories include, at the most general level, individual interactants, interacting pairs, and social groups (see Mühlhäusler & Harré 1990 on pronoun systems and social identities). The model of time in such a socio-economic system comes to be construed not as accreting, but as regenerating in regular rhythms modelled on the cycles of human generations, one dimension

³ Lévi-Strauss (1978) compares Native American and ancient Roman construals of time, as cyclic and accreting respectively.

⁴ Compare Marx's (1970) analysis of money as an abstract symbol for social relations.

of an elaborate theory of social and material reality that is formalised in the *tjukurpa*. This is explored in more detail in the region of causality in Rose (1991).

In addition to such grammatical syndromes as recursive clause series and serial duration, we can identify a large range of lexical items that refer to entities and activities specific to the culture and its natural environment. It is important to recognise, however, that lexical items are merely the most delicate instances of more general patterns of ideational meaning, such as those illustrated in examples [1:3–4] above. Since the semantic contrasts that lexical items encode are more accessible to our consciousness than the more general meanings realised in clause and group structures, both folk and formalist grammatics tend to locate meaning within words. What is harder to recognise are the grammatical cryptotypes that encode a culture's theory of reality at a deeper unconscious level.

1.3 Symbolic capital: variations in dialect and mode

1.3.1 Diversity of semiotic resources

While the material technology of Western Desert culture was necessarily limited by the need to travel on foot, the semiotic resources of the culture were and remain particularly rich. The survey here is focused particularly on the lexicogrammar of Western Desert language, as a semiotic resource for exchanging meaning, but the grammar constitutes just one dimension of the semiotic system as a whole that realises the culture. Above the grammar are the syndromes of discourse patterns characteristic of Western Desert texts. These patterns in turn realise the systems of social relationships and socioeconomic fields that constitute the culture, that we have outlined and exemplified in the preceding sections. These sociocultural systems are manifested and reproduced through time as social situations, that are themselves realised as texts of various types, including verbal exchanges, instructions, narratives, songs, rituals, paintings, as well as the range of traditionally prescribed material activities touched on above. It is these texts that constitute the symbolic capital of the culture.

The most highly valued of these semiotic resources is the large system of religious narratives, songs and ceremonies that compose the Law. This is an important but often misunderstood point about indigenous Australian cultures. It is commonly assumed by linguists in the Australian field that languages are the most precious resource of the cultures, and that those remaining must be preserved at all costs, preferably exactly in the forms that linguists have first recorded them. What is poorly understood is that to indigenous peoples it is not the languages in themselves that are the most valuable resource, but the Law; without the Law there can be no reproduction and transmission of the cultures, except in relatively superficial fragments, and without coherent cultural transmission that the Law underpins, the languages will lose their core functions. This is what has happened to the Law, to cultural transmission, and ultimately to the languages, throughout the so-called 'settled' regions of eastern and south-western Australia, a tragic process of loss and resignation described eloquently by Elkin (1993), and touched on by Strehlow (1947) in the central Australian context.

Some Western Desert religious narratives, as they are told to the uninitiated, have been analysed as part of the description here, as is a range of other text types, including historical accounts, explanations, procedures, expositions, exhortations and conversations between various classes of kin relations. These range from everyday family conversations to specialised forms of discourse, such as *tjalpawangkantja*, spoken between brothers-in-law, and *alpiri*, spoken by older men across large encampments. There are a number of such

register types recognised by name in the culture, ranging in accessibility from forms of child's play imitating adult discourse, such as *minyma-minyma* in which girls play at being women, to the variety *anitji* spoken by the immediate family of a youth during his initiation period.⁵

So the symbolic capital of Western Desert culture is very diverse indeed. Clearly it is not possible to present more than a small fraction of these resources in this chapter, before going on to look at the grammar through which they are realised in more detail. Instead I will exemplify them through a model that attempts to systematise them in terms of variation (diversity), and development (change). Linguistic variation is examined in terms of dialect, register, genre, and socio-semantic code. Variations in dialect, register, genre and code correlate with variations at different strata of language and its contexts; dialect covers variation in lexicogrammatical and phonological forms, register in syndromes of meaning realising contexts of situation, genre in the situational potential of the culture as a whole, and code in the ideological skewing of the social semiotic system (see Martin 1992, Matthiessen 1995:37). This discussion of variation is followed by a brief look at approaches to the phylogenesis of Western Desert language.

1.3.2 Dialect variation

The domain of dialect variation is primarily in the forms of lexicogrammatical and phonological structures. Examples are phonological distinctions between other Western Desert dialects and Pitjantjatjara, which alone drops word-initial /y/ and disallows word-final consonants. Words common to all dialects that end in a consonant, such as *nyangan* 'these', must be suffixed with *-pa*, if there is no other suffix inflecting it in the context of a particular clause, giving *nyanganpa*. Lexical distinctions are foregrounded in dialect names, such as Pitjantjatjara having (the word) *pitjantja* 'coming', Yankunytjatjara having *yankunytja* 'going', Ngaanyatjarra having *ngaanya* 'this', and so on. These variations arise in the Western Desert from geographical distances separating communities of speakers, and have limited consequences in the semantic stratum: social groups living in separate but similar locations express identical semantic systems with slightly different structures (Miller 1971, Myers 1986). Dialectal variation is a result of very small changes over generations in the conservative regime of semiotic reproduction.

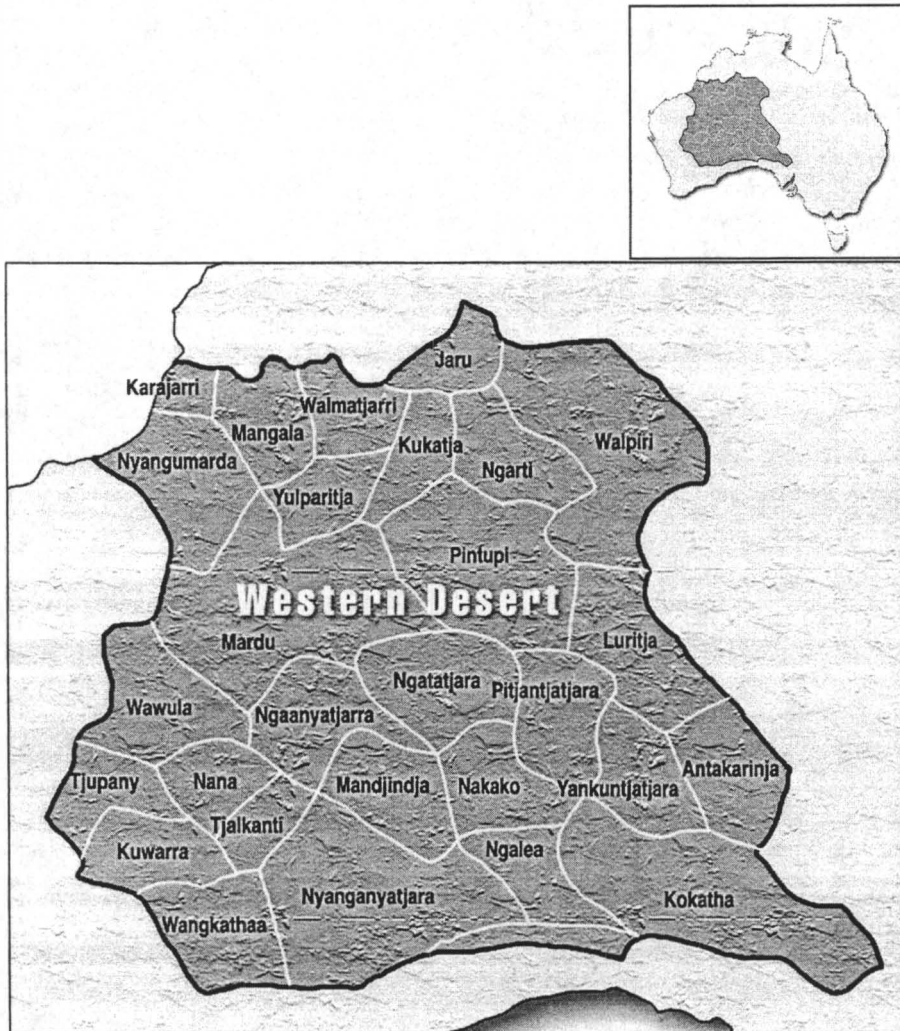
1.3.2.1 Western Desert dialect groups

Dialect communities in the Western Desert are not political units. They are composed of kin groupings that have had a relatively high frequency of contact and exchange of marriage partners. Their geographical ranges tend to be bounded by particularly waterless tracts, limiting contact with other dialect groups to good seasons, but not so much that neighbouring dialects diverge significantly. For example, the eastern Pitjantjatjara of the Mann Ranges are separated from their Yankunytjatjara neighbours in the Musgraves and Uluru (Ayers Rock)

⁵ A comparable process of lexical replacement in the same sacred context as *anitji* is described as 'antonymy' in Warlpiri by Hale (1971). This is also comparable to the 'in-law' registers in other languages, such as Dyirbal (Dixon 1972), Guugu-Yimidhirr (Haviland 1979), Bunubal (Rumsey 1982) and Gooniyandi (McGregor 1989), and to the sign languages used by widows in Warlpiri and other central northern NT language groups (Kendon 1988), although the contexts of their use differ. In each of these contexts, use of the common tongue is considered dangerous or profane. The same principle is applied to a deceased person's name in all Australian cultures, the use of which is avoided for some years.

by sand plains with a series of ephemeral claypans and soaks, although these groups are extensively inter-married (Layton 1986 discusses some of these interrelationships). In the west the Tomkinson Range Pitjantjatjara speakers are separated from their Ngaanyatjarra neighbours in the Blackstone and Warburton Ranges by a similar barrier, but are similarly inter-married. Within the Pitjantjatjara region, eastern and western areas are connected by a series of semi-permanent water sources, and there is a high level of inter-marriage and movement of families between these regions, which may help to explain the homogeneity of the Pitjantjatjara dialect. Curiously Pitjantjatjara is also the name of the dialect spoken to the north in the Petermann Ranges, although a dry sand plain also separates them from the Mann and Tomkinson Ranges, and inter-marriage is less frequent than between eastern and western groups. These northern groups often marry Pintupi speakers of the Gibson Desert further to the north-west (discussed by Myers 1986). Stretching south of the Mann and Tomkinson Ranges is the Great Victoria Desert, in which dialect boundaries are very unclear. Northern families in this region certainly identify as Pitjantjatjara, while those to the east may identify as Yankuntjatjara and to the west as Wangkatja (of the word *wangka* 'speech').

Western Desert dialects include the following major groups (see Map 1): Kartujarra, Gugadja, Warnman, Yulparija, Manjiljarra, Ngalawangka, Wanggatha/Wangkatja, Wangkajunga, Pintupi, Ngaatjatjarra, Ngaanyatjarra, Pitjantjatjara, Luritja, Yankuntjatjara, Kukatja. It is noteworthy that the name of the dialect in the far south-eastern and northern extremes of the Western Desert bloc is the same (although the spelling is sometimes different), meaning 'of game' *kuka-tja*. However boundaries between groups and subdivisions within groups are notoriously difficult to categorise in the desert. For example, the name Yulparitja means 'of the south', and refers only vaguely to groups living south of the West Kimberley in the Great Sandy Desert, while Luritja is apparently derived from an Aranda name meaning 'strangers', i.e. the desert people living beyond Aranda lands. Hansen (1984:7) uses the term 'multigroups' in relation to dialect groupings in the Gibson and Sandy Desert regions, between which there might be a small difference in vocabulary, in the order of a twenty per cent. He reports the following group names from the region: *Karnti wangkatjarra, Parturatjarra, Pitjapitja, Wirnanpa, Purruku wangkatjarra, Warnantjarra, Kuwarratjarra, Ngaatjatjarra, Puritjarra, Tjiwalinytja, Ngulyu wangka, Mantjiltjarra, Kukatja kiya, Tjarrurungkatja, Minurungkatja, Wangka tjukutjukutjarra, Wangka kuwarra, Kakarra wangka*. Hansen (1984:8) also discusses one local group that uses five different dialect terms based on the words *jukujuku, kuwarra, manjila, minuru, kayili*.



Map 1: Western Desert dialect groups

Because of their marriages to Yankunytjatjara families, the eastern Pitjantjatjara were the first groups to visit and eventually settle in the Ernabella mission in the late 1930s, followed by many of their western Pitjantjatjara kin during the drought of the early 1940s. Some of the western Pitjantjatjara moved west to Warburton mission at this time, but most of these families later moved to Ernabella, at least some of them after conflict with Ngaanyatjara people at Warburton (pers. comm. Nganyintja, Ilyatjari, Jackie Burton). Northern Territory families moved to Areyonga and Papunya settlements during the 1940s drought, while the Pintupi stayed away from the settlements until the British rocket tests of the 1960s brought them to Papunya. Families in the Great Victoria Desert tended to move south to Ooldea soak on the Transcontinental rail line, and were later shifted to Yalata settlement at the time of the atom bomb tests of the 1950s, while others moved to Cundeelee mission in Western Australia. In the north-west, Manjiljarra groups moved to Jigalong mission and Gugadja groups to Balgo mission during the 1940s drought. On the desert fringes, Western Desert groups had been moving to cattle stations and other settlements for work and rations since the 1920s.

These dislocations confused the dialect situation. Tonkinson (1978) reports that several minor distinctions in Mardudjara associated dialects were lost during this period. In the Ernabella area some of the distinctions between Pitjantjatjara and Yankuntjatjara speakers became more blurred, and many Pitjantjatjara have remained in Yankuntjatjara areas despite the re-establishment of communities in the Pitjantjatjara areas as a result of the homelands movement in the 1970s.

1.3.2.2 Dialect and language variation

In the Australian context as a whole, language variation can be viewed as a higher degree of dialect variation, since language communities all over the continent exchange similar systems of semantic resources realised in differing phonological and morphological structures (Evans 1992). In fact the distinction between dialect and language is a cline, not a substantive boundary. Language communities that share a majority of phonological, morphological or lexical items are held to be dialects of a single language, but as the percentage of shared items decreases they are held to be distinct languages or language groups. A result is that estimates of the number of languages in Australia vary widely between two and five hundred (Walsh 1997b). Table 1.8 below shows Wurm's (1971) estimates of the percentages of shared vocabulary used to classify relationships between languages, based on lexicostatistics.

Table 1.8: Shared vocabulary and language relationships
(after Wurm 1971)

Shared vocabulary	Relationship
less than 15%	different families
16% > 25%	different groups of the same family
26% > 50%	different subgroups of the same group
51% > 70%	different languages of the same subgroup
71% > 100%	different dialects of the same language

As discussed under phylogenesis above, Western Desert is classified as a member of the Pama-Nyungan subgroup 'Nyungic', that covers the south-western third of the continent. Controversy currently rages in Australian historical linguistic circles as to whether Pama-Nyungan should be classified on morpho-syntactic grounds as a group or family, and thus whether Australian should be a family or the next taxon above, a phylum (O'Grady & Fitzgerald 1997). It is also postulated that at least some non-Pama-Nyungan groups may be as distinct from Pama-Nyungan and each other as language families. What this means in the Australian context, where the time-scale of phylogenesis is tens of millennia, is difficult to say, particularly as the criteria being used to measure differences are merely at the levels of phonemes, morphemes and words to a lesser extent. Dixon (1980) rejects the non-Pama-Nyungan classification, citing a range of other possible classifications using comparable criteria. It seems likely that greater variation described in non-Pama-Nyungan languages is associated with greater variety of rich environments and relative isolation between groups, reducing outside pressures on linguistic conservatism and encouraging local innovation. According to Peter Sutton this is the case with the languages and cultures of Cape York in north Queensland, which are still classified as Pama-Nyungan, and may also hold for non-Pama-Nyungan regions (pers. comm. 1999).

An alternative approach to relationships between languages and language groups is the grammatico-semantic perspective of SFL. One non-Pama-Nyungan language is Kuniyanti (or Gooniyandi), described by McGregor (1990) using an SFL framework for clause rank systems. With some exceptions, such as a greater tendency to realise participant functions in the verbal group, the functional organisation and realisational strategies of Kuniyanti closely resemble those of Western Desert. Some striking examples of commonality include the clause sequencing syndromes, and verbal realisation of Duration described above, as well as the construal of mental processing as inner speech, described in Chapter 5 below. Despite language differences, socio-cultural connections are often just as strong across language boundaries as between them. Throughout Australia, ceremonies of initiation and betrothal cross many language boundaries, uniting groups that share the same religious systems (Harvey 1997, McConvell 1997). For all these reasons the semantically organised description here is likely to be generally applicable to the description of other Australian languages, with more significant differences in the structural realisations of functional categories, particularly at lower ranks, than in the semantic code. Some regional semantic variations occur at clause rank, but are most apparent at word rank as names for processes and entities. The relationship of the Western Desert culture bloc to other major culture regions in Australia is mapped in Figure 1.7.

1.3.3 *Register variation*

While dialects variation is realised in the lexicogrammatical and phonological strata of language, the domain of register variation is in the contexts of situation that language realises as texts. Variations in context of situation are described by Halliday (1978) in terms of generalised socio-semantic dimensions of *tenor*, *field* and *mode*. These contextual dimensions tend to be realised in the linguistic regions of interpersonal, ideational and textual meaning respectively. Halliday's (1989:12) definitions of these context variables are as follows:

Field refers to what is happening, to the nature of the social action that is taking place: what it is that the participants are engaged in, in which language figures as some essential component.

Tenor refers to who is taking part, to the nature of the participants, their statuses and roles: what kinds of role relationship obtain, including permanent and temporary relationships of one kind or another, both the types of speech roles they are taking on in the dialogue and the whole cluster of socially significant relationships in which they are involved.

Mode refers to what part language is playing, what it is that the participants are expecting language to do for them in the situation: the symbolic organisation of the text, the status that it has, and its function in the context.

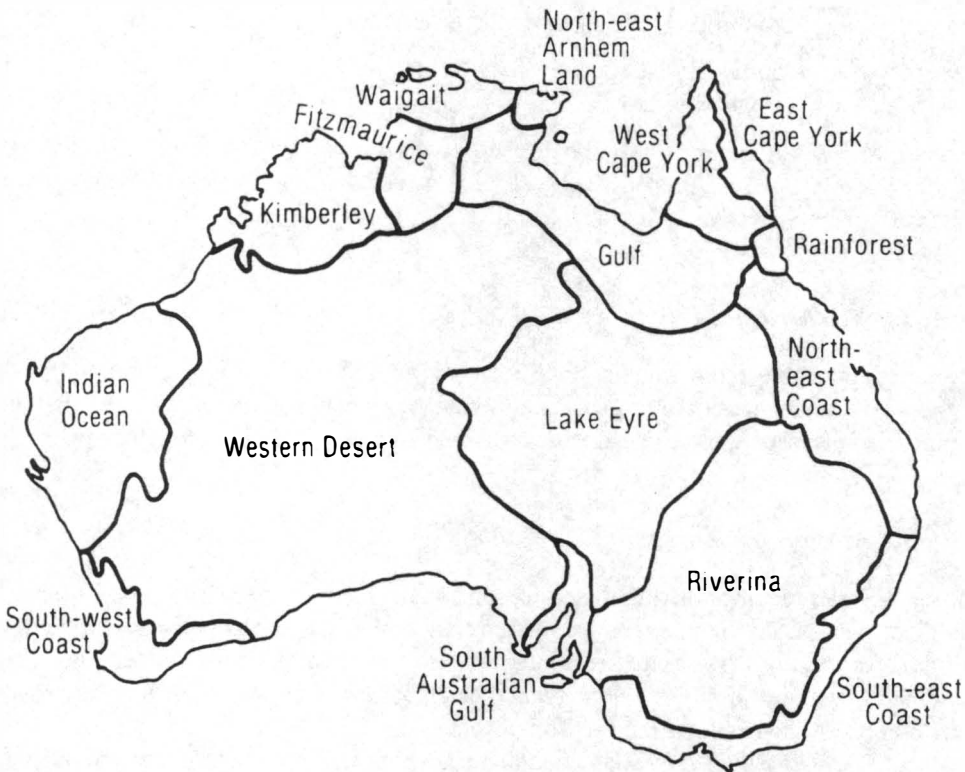


Figure 1.7: Indigenous culture regions in mainland Australia
(from Peterson 1976)

These functional relationships between language and context are explained by Martin (1992:494) as follows:

Halliday's intrinsic theory of language is thus projected onto context as an extrinsic theory of language use. The realisation relationship between context and language is treated as a symbolic one, with language a metaphor for social reality at the same time as social reality is a metaphor for language. The relevant proportionalities are as follows:

METAFUNCTION : CONTEXT ::
ideational : field ::
interpersonal : tenor ::
textual : mode.

Martin (1992:508–546) also analyses features of tenor, field and mode more delicately, and identifies syndromes of linguistic features that realise them. These register variables include:

TENOR	status: equal/unequal contact: involved/uninvolved
FIELD	activity sequences taxonomies (of things, people, processes, places and qualities)
MODE	monologue/dialogue action/reflection

So the domain of register variation is in the options available for settings of tenor, field and mode. These are realised respectively as varying probabilities for selections by speakers from systems of interpersonal, ideational and textual meanings.

1.3.4 Mode variation

The preceding table from Martin (1992) shows variations in mode are oriented in two directions. On the one hand, the orientation to tenor varies between monologue and dialogue, while on the other, orientation to field varies between language in action or reflection.

1.3.4.1 Orientation to tenor and field

The tenor-oriented monologue/dialogue continuum in mode variation determines the potential for turn-taking in an exchange, with casual conversation at the least restricted and traditional storytelling at the most restricted end of the scale. In between are deferential modes of address, and highly regulated genres such as *alpiri*, in which each speaker waits until the other has finished their piece before responding.

The field-oriented action/reflection continuum in mode variation determines the degree to which a text is i) independent of its immediate context, i.e. constituting the social activity, or ii) dependent on the context, i.e. ancillary to the social activity that is going on. At the reflective end of this scale are stories, particularly traditional stories and structured rituals; at the action end are instructions and encouragements that accompany activities. Procedures in Western Desert tend towards this end, with authoritative elders giving ancillary instructions and modelling, as young people practise activities like tool production, food gathering and preparation.

While overt linguistic features such as lexical items and their pronunciation are regulated by traditional folk grammatics, the more covert organisation of ideational and interpersonal meanings into cohesive text is not analysed by either folk or formal grammatics. However an understanding of the textual resources, by which such organisation is achieved, is as crucial to a complete interpretation of the language as are interpersonal and ideational resources.¹

¹ Since formal Australianist descriptions are based on a similar if more elaborate focus on overt rules of phonetics and morphology as folk grammatics, the more covert patterns of textual organisation in indigenous Australian languages have tended to be largely overlooked. One consequence for indigenous communities is that formal linguistics does not provide the tools to analyse the differences between 'speech written down' and the syndromes of covert features that have evolved in a written mode (e.g. Goddard 1990, Gale 1994), so the 'vernacular literacy' curricula advocated for indigenous community schools cannot take learners beyond the grammatical 'rules' that they already know, once an orthography is taught. The results are that 'currently, writing in the vernacular does not complement speaking; it's simply a rather ineffective watered down version of it - a poor relation' (Martin 1991:16), and that English literacy levels are tragically low after decades of such vernacular literacy programs.

The survey here explores textual resources in Western Desert in three separate but interacting functional domains: IDENTIFICATION, THEME and INFORMATION. Briefly, selections in IDENTIFICATION specify how the identity of clause participants and circumstances are recoverable from the context or preceding text. Selections in THEME specify the speaker's semantic starting point for each clause and its relative status in the unfolding development of a text. The Theme of each Western Desert clause extends up to and includes the Medium; the remainder of the clause is Rheme. Selections in INFORMATION specify whether an element of a clause is given in the context or the preceding text, or is new to the listener. Information is realised by the distribution and tonic focus of tone groups with the clause. Each of these resources operates in harmony and tension with the others.

1.3.4.2 Identification and mode variation

Contrasts in the field orientation of mode, between accompanying and constituting social action, are brought out strongly in patterns of participant identification. Identification relates messages to their context (of the situation or of the text), by presenting the identities of people, things and places lexically, or indicating how their identities can be recovered from the context. The latter can be indicated in two general ways: by pointing at the location or direction in which an identity can be recovered (demonstrative reference), or by indicating the role of the element in the interaction, as speaker, addressee or non-interactant (personal reference). Where the mode is field-accompanying, reference tends to be exophoric to the situation of speaking; where it is field-constitutive, reference tends to endophoric, functioning as a cohesive resource in stories. Text [1:1] is a good example of a field-accompanying text, in which people and places are identified exophorically. It is re-presented below as example [1:1']. Exophoric reference is indicated by an arrow (following Halliday 1994a:317).

[1:1']					
M	<i>kuta</i>	<i>ngayulu</i>	<i>nyanga-ngka</i>	<i>ngari</i>	
	older brother,	I	at here	lie-!	
		↑	↑		
K	<i>wiya</i>	<i>ngura</i>	<i>nyaratja</i>	<i>tjitji</i>	<i>ma-ngari</i>
	no,	yonder	place	child,	lie apart-!

Reference items in example [1:1] include the personal pronoun *ngayulu* and the demonstrative pronouns *nyangangka* and *nyaratja*. An example of field-constitutive mode is Text [1:2], about the hunting and food gathering activities of two men and two women, re-presented here as example [1:2']. In this text the participants are identified by endophoric reference, indicated here by backwards pointing arrows.

[1:2']					
1	<i>wati kutjara pula</i>	<i>a-nu</i>	<i>malu-ku</i>		
	they2 two men	did go	for kangaroos		
	←				
=2	∅	<i>kuka kanyila-ku</i>	<i>tati-nu</i>	<i>puli-ngka</i>	
	(they)	for game wallaby	did climb	up the hills	

+3	<i>munu</i> and-SM	<i>-pula</i> they2	<i>kuka kanyila</i> wallaby game	<i>kati-ngu</i> did bring
+4	<i>ka</i> and-SW	<i>-pula</i> the other2	<i>mai-ku</i> for food	<i>tjaru- ukali-ngu</i> down-did descend
+5	<i>munu</i> and-SM	<i>-pula</i> they2	<i>mai ili</i> fig food	<i>ura-ningi</i> were collecting

The reference items in example [1:2'] are the personal pronoun *pula* 'they2' (i.e. 2nd person dual), while in line 2, the identity of the Medium is implicitly presumed, referring back to the identity in line 1. In addition the identities of Medium in lines +3, +4 and +5 are indicated by conjunctive ('switch') reference, including *munu* 'same Medium' and *ka* 'switch Medium'. In line 3 *pula* refers to the same Medium of line 2, i.e. 'the two men'. But in line 4 the identity of Medium is switched to a different pair 'the other two' (i.e. two women), and this identity is the same in line 5. By these means narratives such as example [1:2'] construct and refer to their own field of social action.

1.3.4.3 Theme and mode variation

Contrasts in the tenor orientation of mode, between dialogue and monologue are brought out in choices of Theme. In dialogue, the tendency is for the interaction itself to be a point of departure for each move, so that the Theme includes an interpersonal element that precedes the experiential Theme. In monologue, interpersonal Themes are a less prominent feature. The dialogue in Text [1:1] is re-presented below as example [1:1''], with Themes underlined.

[1:1'']

M	<u><i>kuta</i></u>	<u><i>ngayulu</i></u>	<i>nyanga-ngka</i>	<i>ngari</i>
	elder brother,	I	at here	lie-?
K	<u><i>wiya</i></u>	<u><i>ngura nyaratja</i></u>	<i>tjitji</i>	<i>ma-ngari</i>
	no,	yonder place	child,	lie apart-!

In M the speaker's interpersonal starting point is the Vocation *kuta*, framing the message deferentially in its interpersonal context, and the experiential Theme is his own identity *ngayulu*. K also starts with an interpersonal element, in this case a negation in response. The location is then picked up and re-presented as experiential Theme *ngura nyaratja* 'yonder place'.

The monologic Text [1:2] is presented below as example [1:2''], again with Themes underlined.

[1:2'']

1	<u><i>wati kutjara pula</i></u>	<i>a-nu</i>	<i>malu-ku</i>
	they2 two men	did go	for kangaroos
=2	<i>ø</i>	<u><i>kuka kanyila-ku</i></u>	<i>tati-nu</i> <i>puli-ngka</i>
	(they)	for game wallaby	did climb up the hills

- +3 munu -pula kuka kanyila kati-ngu
 and-SM they2 wallaby game did bring
- +4 ka -pula mai-ku tjaru- ukali-ngu
 and-SW the other2 for food down-did descend
- +5 munu -pula mai ili ura-ningi
 and-SM they2 fig food were collecting

In this narrative extract there are no interpersonal Themes, rather the starting point of each message is with textual cohesion, including conjunctive and pronominal reference. These examples of mode variation are expanded on in Chapter 3, with more extensive illustrations of the range of variation between field-accompanying and constituting variations, and between dialogue and monologue. In addition, the crucial role of intonation in organising interpersonal and experiential elements, as Given and New information, is extensively explored.

1.4 Mapping the culture: variations in genre and code

1.4.1 Genre variation

Variation in genre refers to settings of tenor, field and mode that combine as predictable patterns in which texts unfold, depending on the type of context. Settings of these register variables in the context predict the general patterns in which texts unfold (Martin 1996b). These patterns are predictable to members of the culture because the range of potential situation types is finite and classifiable, so that the type of situation is mutually recognisable for interactants. Bernstein (1971–1990) refers to the system of situation types in a culture as 'relations between contexts', which he suggests specify the principles for recognising 'relations within contexts'. Or in the terms developed here, the options in register selected in a situation are predicted by options in the system of genres in the culture.

1.4.1.1 Genre agnation

Developing a systemic model of genre agnation influenced by the work of Labov (1972) and Longacre (1976), Martin (1992) cites Hasan's early work on generic structure potential.

The property of structure is what allows us to distinguish between complete and incomplete texts on the one hand, and between different generic forms on the other. With some oversimplification, the assumptions here can be stated as follows: associated with each genre of text - i.e. type of discourse - is a generalised structural formula, which permits an array of actual structures. Each complete text must be a realisation of a structure from such an array. The generic membership of the text is determined by reference to the structural formula to which the actual structure can be shown to belong. (Hasan 1977:229)

Martin proposes a paradigm for genre agnation that foregrounds generic characteristics of goal orientation and staging, and a field-oriented contrast between genres that are activity-structured, such as *recount*, *procedure* and *explanation*, from genres that are not activity-sequenced, such as *description*, *report* and *exposition*. Whether or not they are activity-structured, texts like these go through a predictable sequence of stages, beginning with some kind of generalisation, and reaching a conclusion once relevant information and

arguments have been provided. This paradigm of genres was not intended to be exhaustive, but was designed to facilitate research of written genres in the context of literacy teaching in schools (Christie & Martin eds 1997, Hyon 1996).

Some of these general options for generic structuring certainly exist within Western Desert culture. However in surveying the generic options of the culture as a whole it has been necessary to make a more general distinction between texts like these that are oriented to field, and those whose structuring principles are oriented towards tenor or mode. This approach is anticipated by work on genre in SFL frameworks, including Ventola (1989) on the dynamic organisation of service encounter genres, and Martin (1992, 1996a) on the periodic organisation of written expositions. It is further proposed here that either field, tenor or mode may be the dominant organising principle of a genre, or cluster of genres, and that this variation in organising principles differentiates genre varieties that are recognised within Western Desert culture. A further type of organising principle is the degree of constraint on speakers to reproduce the text as it has been laid down by tradition. The most tightly constrained genres are those whose organisation is codified in the Law, while more loosely constrained genres unfold according to the contingencies of the situation. Thus it is possible to interpret the organisation of genres from two perspectives, one from below by the foregrounding of one or another register variables, of field, tenor or mode, and the other from above by the ideological framing of the text's social value, more or less constraining the power of the interactants in its evocation. This framework for interpreting the generic potential of the culture is presented below as Table 1.9, exemplified with some genres that are assigned names in Western Desert.

Table 1.9: Framework for generic potential in Western Desert

REGISTER FOCUS

CONSTRAINT	field-oriented	tenor-oriented	mode-oriented
tight	<i>tjukurpa milmilpa</i> 'sacred myths'	<i>alpiri</i> 'elders' meetings'	<i>pika ngulu</i> 'Big Law'
moderate	<i>tjukurpa ara</i> 'oral history'	<i>tjalpawangkantja</i> 'speaking obliquely'	<i>tjilkatja</i> 'initiation ceremonies'
loose	<i>nintintja</i> 'instruction'	<i>utiwangkantja</i> 'casual conversation'	<i>inma</i> 'secular performances'

1.4.1.2 *Field-oriented genres*

Field-oriented genres in Western Desert are always activity-sequenced, including stories of events, accounts of phenomena, and expository texts. Phenomena are described in terms of the habitual behaviours of people or animals, for example, the uses of plants, or the manufacture and use of cultural objects, each of which is realised as an activity sequence. Likewise, expositions tend to be framed in terms of the kinds of behaviour that are or should be expected. There are no genres that are structured on the principles of taxonomic relations of qualities, classes or parts, like descriptions and reports in English. Relational figures feature in activity sequences, but are the major figure type only in certain sections (see §5.4 below), rather the most common figure type in all field-oriented genres are actions.

The mostly tightly regulated type of field-oriented texts are the sacred myths known as *tjukurpa milmilpa*. Not only the subject matter, but the structuring of the myths is reproduced

with extraordinary fidelity. The entire story may not be told on each occasion, and in the case of many sacred myths only certain sections can be told to non-initiated listeners. However it is not uncommon to hear the same myth told on different occasions, by different speakers, with strikingly similar wording and intonation. It seems that this is possible because speakers hear each myth on many occasions, and frequently in the company of a group of elders who may contribute to its telling, and correct it if the speaker is considered to have departed from the proper telling. More sacred myths are the responsibility of particular descent groups, whose members are its proper storytellers, and who will generally only tell the whole story in detail at the sites in which its events occurred, of which they are also the principle custodians. In the case of stories whose events cover long stretches of territory, different groups along it have responsibility only for the sections of the story that pass through their estates. One consequence of this may be that the whole story cannot be told without the presence of a number of elders responsible for its various segments. It appears that myths may be told with a characteristic pattern of intonation that carries its elements on highly predictable waves of information at several levels of grammar and discourse. This patterning is discussed further in Chapter 3 below. It may be that these social and phonological factors contribute to the myth being remembered and reproduced exactly generation after generation, as are the sacred songs discussed below.

Story genres that are not sacred and so less highly regulated are known as *tjukurpa ara*, of which there are two general types recognised: *ara iritja* 'oral history' that may be the property of the group as a whole, and so will have some degree of social regulation, and stories of personal or group experience which are the least regulated, known as *tjukurpa kuwaritja* 'stories of today'. Skill in the telling of such stories is highly valued, and is used to effect to persuade listeners to a point of view. An example of oral history is given in Chapter 3 in Text [3:2], in which the use of metaphor is a notable feature, and another is thoroughly analysed from many perspectives in Text [7:1] in Chapter 7. Other examples of story genres are used throughout the survey. The generic staging of story types varies across degrees of constraint, the most common type being recount, but also including narratives with an Orientation^Complication^Resolution structure, of which a mythic example is described in Rose (1990). Myths in general tend to go through one or a series of Complications in which the normal order of the world is disturbed, and then resolved in some way.

Factual genres include accounts of culturally regulated social behaviours, and of the behaviours of animal species. These may also be more or less constrained in their subject matter and structuring, depending on the social value of the subject matter. They may be distinguished from recounts by the use of habitual instead of past tenses, amongst other features. Instructions for performing procedures are more or less regulated for the same reasons, but are dependent on the context of speaking, accompanying the activity being taught, so that while the subject matter may be tightly constrained, their pattern of logogenesis is variable. Field constitutive procedures, that tell how to perform an activity out of context, are not part of the culture. An example of an instructional text is given in §3.2 below.

1.4.1.3 Tenor-oriented genres

The structuring principle of tenor-oriented genres is the nature of the unfolding interaction between speakers, including various types of exchange between pairs and groups of kin. Such dialogic texts are as much goal-oriented social processes as are field-structured texts, but

they are oriented towards interpersonal goals such as solidarity or persuasion, which accumulate prosodically as the dialogue unfolds, and may not necessarily be achieved through a series of discrete stages.

The type of tenor-oriented genre that is most constrained by tradition is *alpiri*. This is spoken by senior men across large encampments, typically in the early morning before other family members have arisen. At this time voices carry in the still air, aided by the characteristic high level tone on which *alpiri* is spoken, with final vowels of each information group extended, and typically rising in tone. Its fields include exchange of news, opinions and grievances in which many speakers take turns, without being able to see each other, yet never speaking over each other. *Alpiri* enables men who stand in many different kin relations with each other to engage in exchanges without putting relationships at risk. The skills of senior men in *alpiri* are uncanny, as a score or more may be involved in a conversation, and few are able to see each other behind the brush windbreaks of their encampments, yet turn-taking is rapid and fluid, without any speaker talking over another. *Alpiri* encapsulates the ideological principle of egalitarian mutuality, managed by the elder custodians of the Law. It is a remarkable experience to listen to it being spoken so adeptly by men sitting behind their scattered windbreaks, while the smoke from their campfires rises in the still morning air. With the advent of two-way radio transceivers in the Western Desert homelands in the 1970s, features of *alpiri* were readily adapted to this form of non-visual communication between multiple interactants. The radio channel was dominated by senior men, particularly in the mornings when signals could be picked up over hundreds of kilometres. Unfortunately it has now been completely replaced by telephone systems.

Less tightly regulated, but still constrained by rules of appropriate interaction is *tjalpawangkantja* 'speaking obliquely' that is mainly spoken between affinal relations, particularly distant brothers-in-law who have exchanged actual or betrothed spouses. Its function is to avoid any implication of status difference between speakers, and at the same time to express solidarity. As such it embodies the function of ceremonial betrothals to establish and maintain relations of reciprocity between distant families, and to avoid conflict as far as possible. It achieves this by continual expressions of mutual deference, combined with positive affect, including metaphors of mood, iteration of vocation and low modality, and oblique reference to persons. Children begin to learn the features of *tjalpawangkantja* in adolescence, and are explicitly instructed in its forms and uses (Lester 1989). Features of *tjalpawangkantja* are comparable with 'polite' discourse in other cultures, such as the mannered forms of interaction often characteristic of middle-class groups. *Tjalpawangkantja* is exemplified in Chapter 4 in Text [4:4.]

Related to *tjalpawangkantja* is the contemporary community meeting. Liberman (1982) reports on generic structuring of Western Desert meetings, particularly what he calls 'summary accounts', in which group decisions are recursively reiterated by senior participants until consensus is beyond doubt. He observes that consensus in meetings seems to be a more valued goal than making a practical decision that may disrupt social cohesion, explaining that "such an interactional system is highly respectful of the wishes of the participants, preserves the egalitarian character of Aboriginal political life, and provides a foundation for congenial relations". This perfectly illustrates the primacy of tenor in the structuring of such genres over considerations of field. Such a meeting is illustrated in Figure 1.8.

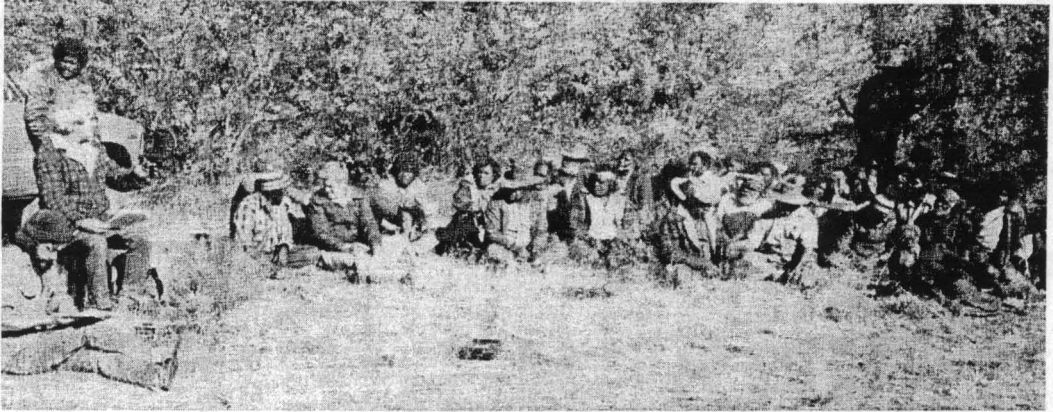


Figure 1.8: A contemporary Western Desert community meeting

While consensual decision-making is a feature of all social groups to some extent, Liberman comments that the “more active and assertive interactional forms characteristic of Anglo-Australian society present the Western Desert Aboriginal people with some formidable problems”. Such interactional forms are inappropriate in large meetings that include both close and distant kin. As a result, as Tonkinson (1978:50) notes, “men and women are extremely reluctant to address such gatherings face to face”, and “public oratory is not highly valued. Most such gatherings typically begin with short speeches by two or three men proclaiming their complete ignorance of the matter about to be discussed!”. Liberman has accurately assessed the generic features of summary accounting, and the characteristic opening self-dismissal. Younger speakers in particular open with a characteristic effacement of their authority to speak, exemplified in [1:5] below.

[1:5] *ngayulu* *ngunti* *unytju* *wangka-nyi*
 I falsely transiently am talking
 I’m only talking off the top of my head, in ignorance.

What is not recognised by Tonkinson is that such an expression is very much a feature of practised public oratory. It is one of a range of resources used by successful Western Desert orators to inform or persuade councils of elders by means of the prosodic expression of mutual respect, which only differ in degree from typical English expressions of respect for one’s audience. Such generic features of meetings exemplify a stronger tendency towards egalitarian mutuality in Anangu society.

This persuasive type of dialogue is exemplified in Chapter 4 with Text [4:3], in which one speaker proposes a plan for a food-gathering trip with several kin. In order to avoid any implication of superior status she begins with maximally deferential expressions, and gradually becomes more direct as the other interactants affirm her plan. The effect of such deferent expressions is to open up the dialogic space for listeners to feel that they have equal power to respond. This text powerfully illustrates the type of prosodic structuring characteristic of tenor-oriented genres.

The least constrained form of interaction is known as *utiwangkantja* ‘speaking openly’, in which relationships of status and contact are expressed directly. These may be equal relations between peers, characterised by features such as direct vocations, direct demands, exclamatives, little modal assessment, stressed tones, as well as by joking, mimicry, teasing, swearing and sexual references. A brief example of this type is Text [4:2] in Chapter 4. They

may also be unequal relations between siblings of different ages, in which the junior sibling tends to use deferent expressions, while the older sibling dominates. This was exemplified briefly between brothers by Text [1:1], and is more extensively illustrated between sisters in Text [4:1] in Chapter 4.

1.4.1.4 Mode-oriented genres

While field- and tenor-oriented genres are organised along principles that originate outside language, in the experience and intersubjectivity of speakers, a mode-oriented genre is primarily organised on principles that are internal to itself. Matthiessen (1991b) proposes that the textual metafunction, because of its nature as 'language turned back on itself', "is concerned with the kind of second-order reality that is created by language itself - **semiotic reality** or reality as meaning". From the perspective of Halliday's (1989) definition of mode as "the symbolic organisation of the text, the status that it has, and its function in the context", genres organised primarily in terms of mode are those in which the symbolic organisation of texts, on various levels, and their status and function in the context of culture, are turned back on themselves. They are concerned with semiotic, rather than intersubjective or 'natural' reality. These are genres that are often characterised as rituals, including religious rituals in all cultures, but also institutionally ritualised genres of all kinds in modern cultures, ranging from court proceedings to school lessons. Their organisation is only indirectly related to the intersubjectivity of the interactants involved, or to fields of their experience, so that they are often experienced by outsiders to the culture either as 'empty' rituals, or as incomprehensible.

Field- and tenor-oriented genres, at least those concerned with congruent construals of experience and enactments of speakers' relations, tend to be comprehensible across cultures, enabling communication between very different peoples. But it is mode-oriented genres that tend to be least accessible for non-members. This may well be one of the social functions they have evolved to fulfil, to exclude the non-initiated and affirm the solidarity or status of the group. The difficulty experienced by indigenous Australian witnesses in court proceedings, for example, is noted by Walsh (1997a). However this is not so much, as Walsh suggests, because 'dyadic communication' is not part of indigenous peoples' cultural experience (it most emphatically is), but more because the indigenous witnesses recognise the ritual nature of the courtroom genre, and are profoundly uncomfortable interacting in such a formal situation for which they do not know the rules. Indigenous children also tend to experience school lessons as ritualised genres that have no direct function in terms of their own expectations of field or tenor, and collectively interpret their rules of organisation as best they can from the clues made available by liberal progressive teaching practices (Rose 1999). (Bernstein 1971–1990 discusses the origins and consequences of 'invisible pedagogies' in western schooling).

It seems likely that mode-oriented genres evolve in the context of social institutions that have organising functions in the culture, and in which there is an indirect relation between the content of communication and its immediate context of situation. These texts will tend to have a relatively high social status, and so their generic organisation will tend to be reproduced faithfully over generations, acquiring a set of structuring rules whose original function may no longer be apparent or relevant. Rather it may be the structuring rules themselves that come to be perceived as the relevant dimension of the texts.

In Western Desert culture, mode-oriented genres are sacred or secular ceremonies. There are no institutions that have evolved beyond the family other than the Law, and it is in the context of the Law that such genres have evolved. The most tightly constrained of these genres are those accessible only to fully initiated men, known as *pika ngulu*, literally 'fearful pain', also known as the 'Big Law'. In these ceremonies, which travel around the Western Desert at irregular intervals of several years, the revelation to participants of sacred rituals and objects is preceded with threats by the elders of severe punishment, if any of their specific content is discussed with the uninitiated. These ceremonies celebrate networks of secret *tjukurpa* that connect the entire continent, and validate the ancient rights to land of the groups participating. Slightly less tightly constrained are the annual *tjilkatja* ceremonies, discussed above, in which youths are initiated and relationships of betrothal and mutual obligation and solidarity are established and maintained between families across the Western Desert. These ceremonies primarily celebrate the *malu* 'red kangaroo' *tjukurpa*, which interconnects the whole of the western half of the continent, but also include ceremonies for a variable range of other *tjukurpa*, depending which groups are involved. The least constrained types of ceremonies include those that are open to men, women and children, including some parts of more secret ones, minor increase ceremonies, and a range of ceremonies that are virtually secular. An example of a rain-making ceremony is shown in Figure 1.9 below. Note the separate locations and roles of men and women. Older men are sitting in a circle to the right singing, while young men dance in single file from the bushes towards the group. Women are sitting singing in the foreground while others prepare to dance, as an older man, a ritual leader, gives them directions.



Figure 1.9: Western Desert ceremony
(from Tonkinson 1974)

1.4.1.5 Structuring of mode-oriented genres

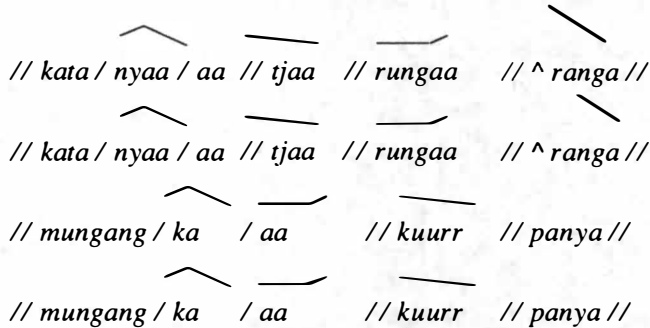
As field-oriented genres are primarily structured in terms of sequences of figures, and tenor-oriented ones are structured prosodically, so periodic ordering is foregrounded as a structuring principle of mode-oriented genres. What I am suggesting is that in such a genre the ordering principles of textual organisation at each language stratum have been deconstructed over the duration of the genre's evolution, and reconstructed in such a way as to present them as the significant features of the genre, over and above ideational and interpersonal functions and structures. This can be illustrated with Western Desert ceremonial genres. These song series are performed by older people, sitting in close groups and beating rhythm with sticks on the ground, or clapping hands in laps. They may be accompanied towards the end of each series with dancing by one or a small group of dancers who have been preparing outside the ceremony ground while the earlier verses of the series are sung, and at a given verse begin their dance towards the singers, which may take three or more verses. At the level of text staging, these song series consist of bursts of singing of some minutes interposed with rests in which singers converse and joke. Each verse in the series represents, in highly schematic and arcane form, one episode in a narrative of the travels and exploits of anthropomorphic Dreaming ancestors.

At each level of the language realising these verses, patterns of sounding and wording are deconstructed and reconstructed to foreground periodicity (see also Ellis et al. 1990). At the phonological level, the meaningful variations available for tone, tonicity and rhythm in speech are reorganised and constrained into highly regular patterns, of tone, tonic focus and stress. These do not perform the same functions of organising lexicogrammar as they do in natural speech. At the rank of foot, stress patterns no longer perform a demarcative function in the lexicogrammar, making it much harder to recognise the boundaries between morphemes, words and word groups. In speech each foot normally correlates with a word, and begins with a stressed Ictus syllable followed by a weak Remiss and perhaps one or two enclitic syllables. These enclitic syllables typically correlate with a suffix on the word. In the songs, the Ictus frequently falls, not on the first syllable of the word, but on the suffix, and the suffix may be extended and even articulated with a different vowel. An example follows, of a song about the evening star *Kata*. Intonation and rhythm is first presented as for natural speech, and then as in the song. The Ictus syllable in each foot of the spoken version is typed in bold, and tone is indicated graphically above the place of major pitch movement in each tone group.

// <i>kata-nya</i>	/ <i>tjaru-nganyi</i> //
Kata ('head')	is lowering
<hr/>	
// <i>munga-ngka</i>	/ <i>kurpa-nyi</i> //
at night	is shining

In the spoken version it can be seen that the Ictus falls on the first syllable of each word, that consists of a two-syllable lexeme followed by a suffix that is consequently enclitic. Where the suffix consists of two syllables, as in the Process *tjaru-nganyi* in line 1, these are shortened in speech so that the overall length of each foot remains about the same. Thus the rhythm of stress and unstressed syllables has a clear, consistent demarcative function with respect to lexicogrammar. In each clause, tonicity realises information focus, with the clause final Process assigned the status of New information, while the low falling tone realises

unmarked declarative mood—i.e. giving information with neutral commitment. These structures and functions are utterly reconstructed in the sung version as follows:



At the lexicogrammatical level each line of the song is deconstructed into three or more tone groups that correlate with a word or part of a word. The first word of each line is deconstructed into lexeme and suffix correlating with three feet making up a tone group. The tonic foot correlates with the suffix that is also extended over two feet. The pitch movement rises and then falls. The tonic focus and tone have no ideational or interpersonal significance. The second word of each line is deconstructed into lexeme and suffix correlating with separate tone groups. None of these tones realise any of the interpersonal or logical functions that they do in speech. Rather they are harnessed to intensify the periodic structuring of the songs by waves of rising and falling. Of course the extent of their rise and fall in pitch is also intensified, although this is not shown in the graphic symbols here.

At the discourse level, each song can be interpreted as a complete text (segment). From the perspective of intonation the song starts with a single singer's voice and then swells with the voices of others who go on to sing in harmony or in counterpoint, and finally fades out as it began, with a few and perhaps a single voice on the final notes. From the perspective of wording, the most common pattern at the discourse level is to repeat each of two lines, and then to repeat this set of four lines perhaps three or four times, as can be seen for the song *Katanya* above. At the level of register, the songs refer so obliquely to their field that they can only be interpreted if the corresponding myth is known. For example, the subject matter of the song *Katanya* recounts the movements of the evening star, descending and shining in the night-time sky, only referring to its broader field in the name, which translates as 'The Head'. This name refers to the severed head of an old man, the father of a prodigal son. The son carries his father's severed head about their estate, as it educates him, and finally directs his revenge on his father's murderers, before ascending to become the evening star. From the perspective of tenor, the function of the songs is to regulate solidarity between singers, not by the normal means in speech of negotiation, but by joint participation in singing. They also have the effect of regulating the unequal status between the elders who are singing, and their juniors who only listen.

So it can be seen that such a mode-oriented linguistic genre as song series may depart radically from the normal realisation of ideational and interpersonal functions at every level of speech, in order to foreground regulatory functions. This can be achieved at each linguistic level, by deconstructing and reconstructing the normal correlations between functions and structures in syntagms. This is also the tendency in highly regulated genres that are oriented to field (i.e. myths), and tenor (i.e. in-law registers), but becomes the dominant organising principle in mode-oriented genres.

1.4.2 *Codal variation*

1.4.2.1 *Codal variation and types of social differentiation*

The domain of variation in **socio-semantic code** is a cultural context as a whole, whose linguistic realisation is its entire semantic system. Since such a socio-semantic system is inherently dynamic and open (Lemke 1993); the degree of codal variation is proportional to the rate of change in its cultural base and the extent of its sources for new semantic options. We have already discussed above the extremely slow rate of change in the material base, social organisation and semiotic reproduction of Australian cultures before European colonisation. While dialectal groups exchanged lexical items, sources for new semantic options were relatively insignificant over the millennia. This may be contrasted with the rapidly changing situation since the invasion, and with modern European culture itself, in which accelerating change and growth of semantic options are defining characteristics. It is by manipulating the inherent dynamism of the semantic system that the managing elites of modern stratified cultures are able to create increasingly sophisticated semiotic tools for exploiting the material and social worlds.

Halliday (in Thibault 1987:620) has referred to the concept of a 'bifurcated register', in which interactants may bring more or less different sets of meaning potentials to the same context. In a similar vein, Bernstein (1971) argues that "which speech codes are realised is a function of the culture acting through social relationships in specific contexts". Bernstein is referring here to the contexts of a stratified social formation, in which two codes are operating, one of which is only available to members of the dominant social class. The two codes differ semantically in fundamental ways: one enacting, construing and presenting in ways that are relatively congruent with speakers' subjective experience of unfolding interaction, activities and discourse; the other re-interpreting social, material and semiotic reality in ways that are objectified, technicalised and abstracted from everyday experience, but still containing the congruent semantic potentials as an alternative set of choices, i.e. an 'elaborated' code in Bernstein's terms. The first code is acquired by all members of the culture in family and local contexts of personal interaction. The second is acquired by members of dominant socio-economic classes in the institutional contexts of higher education in which it evolved. The distinguishing grammatical syndrome in this mode is elaborate proliferation of ideational metaphor (see Bernstein 1990, Halliday & Martin 1993, Rose 1997, 1998).

In non-stratified cultures such as the Western Desert there is no such fundamental bifurcation in code. Rather the socio-semantic system constitutes a single code, but one that is drawn on differently by different groups of members. What differs is not the code itself, but members' orientation to the code, and differences in coding orientation are the realisation of ideological positioning of members. In the Western Desert, these differences are determined primarily by age ranking, and to some extent by gender. We could distinguish perhaps three major ontogenetic stages in the acquisition of coding orientations.

To begin with, a child's coding orientation privileges semantic features that are particularly context-dependent, subjective and concrete, that is, features that are accessible to their consciousness through direct personal interaction in familiar local contexts. They are aware that contexts exist that they are not privy to, such as men's secret religious activities, but as they have no experience of them their semantic repertoire is restricted to those they know, such as the use of direct demands to achieve compliance from other members of their kin group. As the individual approaches adulthood their coding orientation broadens, along with their social experience, towards meanings that are independent of specific contexts,

objectified from immediate interactions, and generalised. This includes formal instruction in the use of interpersonal metaphor in interaction with affinal kin, in their own and others' rights and obligations as adult members of the society, and little by little in the abstract principles encoded in sacred texts and ceremonies. As an adult matures towards seniority, their coding orientation becomes more elaborated, incorporating more and more of the generalising and abstracting potential of the semiotic system, facilitating reflection on and management of the social system as a whole.

1.4.2.2 *Elaborated coding orientations*

Bernstein argues that abstract orders of meaning can be features of societies with either complex or simple divisions of labour, that both elaborated codes and elaborated coding orientations "are the media for thinking the 'unthinkable', the 'impossible', because the meanings they give rise to go beyond local space, time, context and embed and relate the latter to a transcendental space, time, context" (1990:182). Elaborated orientations are realised, for example, in the cosmologies of small-scale societies, but their "code of cultural transmission, *the relay itself*, is not an elaborated code" (1990:251). In other words, the grammatico-semantic realisations of these cosmologies are no different from those of everyday spoken discourse, employing the same congruent realisations of exchanges and activity sequences that we exemplified in Texts [1:3–4] above. Rather, the elaborated orientations to meaning that the mythic narratives encode are realised by layers of interlocking semantic features whose significance is revealed in stages of members' ceremonial apprenticeship (Rose 1991, 1993).

An example of this layering of semantic motifs to realise abstract concepts, is the following myth [1:6], named *Kipara*, which recounts a mythic hero's rescue and distribution of domestic fire to the people. The elements of this story are linked, through the narrative and associated ceremonies, to the elders' distribution of 'cultural fire' (i.e. secret-sacred knowledge) to new initiates, encoding an abstract principle of social order embedded in the powerful transforming experience of initiation. The *Kipara* story opens with the people living without fire, in the dark and ignorance. The only creature possessing fire is the bird known commonly as plains turkey or bustard, *Kipara*. Desiring the fire, men from every place chase after him as he strides across the Great Victoria Desert towards the Southern Ocean, attempting to snatch the fire from him. This journey is manifested today in the annual *tjilkatja* ceremonial journeys for initiation and betrothal. As *Kipara* submerges beneath the waves with the fire in his head feathers (which are black today), the black falcon *Waru-tjulya-lpai* 'Snatches-Fire' swoops out of the sky, snatching up the fire, and carrying it back to Mount Lindesay, *Watar*, in the north. From this hill he casts out firesticks to everywhere in the land, starting grass fires from which the people pick up firesticks for themselves, and dance with joy. This is how the fire we have today originated. But the myth also recounts one aspect of the origin of the initiation ceremonies, as the men's pursuit of the primordial fire across the desert, and its rescue and distribution by *Warutjulyalpai*, perhaps representing the elders who pass on secret sacred knowledge to new men through these ceremonies (see Rose 1991 for a fuller analysis).

Text [1:6] *Kipara* narrated by Nganyintja

- 1 *tjukurpa kunyu*
 myth its said²
 This is a Dreaming story, I have been told.
- 2 *anangu tjuta nyina-ngi manta nyanga-ngka*
 the people were living in this land
 People were living in this land.
- 3 *manta wingki-ngka kunyu nyina-ngi anangu tjuta*
 in all lands its said (they) were living, the people
 In all the lands, it's said, the people were living.
- 4 *munu ya paluru tjana waru kurakura kanyi-ningi tili maru-tjara*
 and they useless fire had with black brands
 But at that time those people had useless fire, with black firebrands.³
- 5 *tili maru-tjara kunyu nyina-ngi.*
 with black brands were living
 With black firebrands, it's said they were living.
- 6 *nya-wa, tjana putu kunyu waru mantji-ningi*
 look! they unable its said fire were getting
 Look, it's said they were unable to make fire.
- 7 *munga-purunpa maru-ngka munga maru-ngka*
 (it was) like night in the dark in the dark night
 It was like perpetual night, like living in darkness, in the dark night,
- 8 *munu tjana ya watarku nyina-ngi*
 and they in ignorance were living
 and furthermore those people were living in ignorance.
- 9 *ka kunyu wati kutju-ngku Kipara-ngku tili wirutjara-ngka nyina-ngi*
 and its said one man, Kipara with good brands was living
 And apparently there was only one man, only Kipara, who was living with fire
 with good firebrands.
- 10 α *ka ngura kutjupa tjuta-ngka wati kutjupa tjuta-ngku kuli-ni*
 and in various places various men are thinking
 wati kutju
 one man
 So in numerous places, a great many men were thinking of this one man,

² The adjunct *kunyu* deflects responsibility for what is said away from the speaker. It is used frequently when narrating myths to emphasise that the story is handed down from higher authorities than the narrator, i.e. from the ancestors.

³ The word *tili* refers to sticks from a fire that can be used to light other fires or as torches, translated here as 'brand' or 'firebrand'.

- β *mantji-ntjikitja waru palu-nya*
in order to get that fire
of getting that fire from him.
- 11 *ka ya palu-nya putu mantji-ra tjulya-ra*
and they it were unable to get by snatching
tjulya-ra wana-ra tjulya-ra wana-ra
snatching, following, snatching,
But they were unable to get it, as they snatched at it, and followed him
continuously.
- 12 *wati kutjupa tjuta-ngku tjulya-ningi putu*
various men were unable to snatch
All those men were unable to snatch the fire from him.
- 13 *ka tjilka-ringu*
and became the *tjilka*
And this journey was transformed into the *tjilka*.
- 14 *tjilka-rara alatjitu kati-ngu*
the *tjilka* group itself did carry along
It was the *tjilka* host itself that was carried along in this journey.
- 15 *ka ya putu tjulya-ra*
and they unable to snatch
tjulya-ra wana-ra tjulya-ra wana-ra tjulya-ra wana-ra
snatching, following, snatching, following, snatching,
So they were unable to snatch from him, as they snatched at it, and followed him
continuously.
- 16 *ka paluru a-nangi alatjitu tjitutjara*
and he was going absolutely continuously
a-nkula a-nkula a-nkula
going, going, going
And he kept right on going continuously, going and going,
ngura nyara wanu wati-pitja-la wati-pitja-la wati-pitja-la
through yon country going across, going across, going across,
a-nkula a-nkula a-nkula
going, going, going
through that country over there, moving across continually, going and going.
- 17 *ngura kutjupa-ngka ngura uru-lta-ngka wirka-nu uru pulka-ngka-lta*
at another place at that coast did arrive at the great water
Finally he arrived at the coast, at the ocean.
- 18 *ka wati nyiruku-lu kati-ra kati-ra kati-ra kati-ra kati-ra kati-ra*
and the man Nyiruku taking, taking, taking, taking, taking, taking
It was the man Nyiruku who was taking them all continuously, taking and taking.
- 19 *uru-ngka-lta kunyu ma-tjarpa-ngu kipara panya paluru*
into the water, at that, its said did enter that Kipara himself

- uru sea-ngka-lta*
into the sea water
Into the water, it's said, he submerged, that man Kipara, into the sea water at that.
- 20 *ka Warutjulyalpai wati paluru tjulpu panya Warutjulyalpai wirtjapaka-nu*
and Warutjulyalpai, that man, that bird Warutjulyalpai did race
- katu wanu*
through the top
But Warutjulyalpai, that man, that bird Warutjulyalpai soared across the sky,
- 21 *ka kunyu ma-tjarpa-ngu*
and its said did enter
while the other one, it's said, submerged in the sea.
- 22 *nyanga kata-ngka-ltai waru panya kampa-ngi*
here on his head that fire was burning
It was here on his head that the fire was burning.
- 23 *ka kunyu a-nkula mapalku tjulya-nu*
and its said going quickly did snatch
And it's said the other came and quickly snatched it.
- 24 *ngalya-kati-ngu*
did bring this way
He brought it back this way.
- 25 *Watar-la wirkati-ngu*
at Watar finally arrived
At Water he finally arrived,
- 26 *munu wani-ngu tili ngura kutjupa-ngka*
and did throw firebrands to other places
and cast out firebrands to all other places.
- 27 *ka Watar-nga waru kampa-ntja waru piti*
and Watar fire burning, the place-of-fire
So Watar is known as Fire Burning, the Place-of-Fire.
- 28 *waru piti Watar-nga Mount Lindesay*
the place-of-fire Watar, Mt Lindesay
The Place-of-Fire is Watar, (also known as) Mt Lindesay.
- 29 *ka palulanguru wani-ngu ngura kutjupa-kutu kutjupa-kutu*
and from there did throw to many other places
And from there he cast it out to many other places.
- 30 *ka waru wi kaangka-ngku nya-ngu hai waru kampa ngalya wanu*
and the crows desiring fire did see hey fire burns this way
Then the crow people saw it, "Hey, there is fire burning towards us!"
- 31 *munu tili tjulya-nu*
and firebrands did snatch
And they snatched up firebrands.

- 32 *ka ya paka-ra nyanpi waaii*
 and they getting up danced waaii
 Then they leapt up and danced, singing "Waaii."
- 33 *pulkara kunyu kaangka tjuta waru wiya pupa-ra pupa-ra-mpa kunyu*
 β greatly its said the crows without fire crouching, crouching its said
 With great joy, it's said, the crow people who'd had no fire, who it's said had
 been crouching miserably,
- α *ngalya-paka-nu-lta*
 did rise up at that
 jumped up at that.
- 34 *munu ya nya-ngu-lta waru nyara-lampa tili ngari-nyi*
 and they saw at that our fire yonder firebrands are lying
 And they saw at that, "Over there is our fire. Firebrands are there."
- 35 *kampa-ngi*
 was burning
 It was burning.
- 36 *munu ya pulkara pukulpa nyanpi*
 and they greatly happily danced
 And they danced with great joy.
- 37 *alatji*
 this way
 That's how it was.
- 38 *ka waru uwankara panya nganana waru kanyi-ni*
 and all that fire we fire are having
 So all that fire is the fire we now have.
- 39 *nyangatja runka-ra tili-ni*
 this rubbing are igniting
 We ignite this by friction,
- 40 *ka waru palya*
 and fire good
 and the fire is good.
- 41 *alatji*
 this way
 That's how it is.

Anangu children would hear this story often around the evening campfire. In this context it fulfilled a function comparable to traditional children's tales in any culture; the children come to know it well, identify with or against its protagonists, and absorb its moral message. It involves a villain, *Kipara*; in other tellings he refuses to give the people his fire, and for his amusement when they beg, he throws them embers which go out before the people can pick them up. Although there is little explicit reaction from characters in the wording of the story, until the dancing and singing in the final resolution, the narrator would use tone and voice qualities to lend emotional force to events, such as sympathy for the unfortunate people. When *Kipara* begins submerging in the sea, in other tellings the people are standing on the

shore wailing in fear of losing the fire forever. But of course there is also a hero, *Warutjulyalpai* 'Snatches Fire', who rescues the fire and distributes it to all the people, in consequence of which we the people now have the fire around which the children are sitting, listening to the story.

But there are other significant elements to the story that children would absorb unconsciously, contributing to their identification with it, and preparing them for later revelations of its underlying cultural messages. For example, the people are compared with crows, which are associated with the people's camps as beggars, *pupa-ra* 'crouching'. The black falcon, *Warutjulyalpai*, resembles crows in many ways—he is the same size and colour and is also a meat eater. But instead of eating the people's scraps, he hunts independently for small game around the grass fires that Anangu light to encourage new growth. These resemblances and differences carry the implicit message that while the hero is of the people, he alone is capable of rescuing the fire, and in contrast to *Kipara*, possesses the admirable generosity to share it. *Kipara* on the other hand is very different kind of bird, a ground-dwelling eater of insects and seeds, a large white stupid bird, whose selfish asocial character could hardly contrast more with the crows or the black falcon.

Even here some of the deeper messages of the myth are beginning to take shape: the multiple associations of the fire in the story, as domestic fire, and as agricultural fire for renewing grasses, that operate as a metaphor for defining culture—the people without fire were living in the dark and in ignorance. In this primordial time men did not have the ability to snatch the fire for themselves, but needed to be given it by a heroic (Promethean) intermediary. These associations multiply as the inner significance is revealed to youths who have been seized from their families and are awaiting initiation. These boys are said to be 'in the *Kipara*, in the *Kipara* ceremony'. It is at this time that they learn that the fire represents the insider knowledge they will be given upon their initiation, that the black falcon represents the elders who will give it to them, and that the men chasing the *Kipara* across the desert represent themselves in pursuit of this knowledge in the *tjilkatja*. Later on they will learn still more associations—that the fire was originally a sacred ceremonial object that the *Kipara* stole from men performing a ceremony in the Petermann Ranges, and the deep religious significance of the location where he entered the sea at Eucla (*Yukula*) in WA. After participating in the *tjilkatja* they will come to recognise how the story avoids constructing the hero as more powerful than the people, that his role is merely as an intermediary who distributes the fire, but that the people remain free agents as they pick it up from the grass fires he has started, reinforcing the ideology of egalitarianism. They will also witness and participate in the ceremonies associated with the fire, and the place-of-fire, *Watar* in the northern Great Victoria Desert, and eventually come to understand its role in the whole system of sacred sites associated with various aspects of the Law.

The fire thus functions as a polysemous icon, comparable with the functions of polysemous items in abstract written discourse such as 'culture', 'language' or 'ideology'. In concert with the whole set of such icons in the text and their associations in ritual and in everyday life, it construes a network of abstract meanings, but abstract meanings that are realised in the concrete congruent lexicogrammar of a children's narrative. As Bernstein terms it, the 'relay of cultural transmission' is not itself an elaborated code; but as such abstract concepts are made explicit to young Anangu, they begin to develop the elaborated orientation to meaning that Bernstein speaks of. However, access to these orientations is controlled by the elders acting as a collective, ensuring that they maintain the final authority to reveal and interpret the secrets of the Law, and that younger people are only provided access as they are deemed ready. Access to elaborated orientations to meaning is thus as

crucial a resource for social control in the Western Desert as it is in western industrial cultures; but while access in stratified societies is distributed according to socio-economic class and ethnicity, through access to the abstract resources of written text, in Anangu culture access is distributed according to age and ceremonial participation. Apprenticeship into elaborated orientations is formalised around puberty, in education surrounding initiation, producing what Bernstein describes as 'shared competences'. In western schooling this is the time when successful learners begin to acquire the elaborated code of middle class culture, in the early years of secondary school, producing 'specialised competences'.

1.4.2.3 Coding orientation and written modes of meaning

These differences between the socio-semantic codes of Western Desert and contemporary European cultures, and between stages of apprenticeship into coding orientations, have serious implications for the potential of Anangu communities to control the changes wrought by western colonisation, including the planning, administration and delivery of community services, and for the schooling and further education that Anangu want for their children, in order to participate in the administration and servicing of their own communities. This ambition has been frustrated by the paternalist ideology underlying European service delivery from missionisation to the present day, manifested particularly in the education offered to Anangu children, which far from facilitating apprenticeship into elaborated orientations to the code of written English, has sought to protect them from its influence. The motives for this began in another colonial era as explicitly protectionist and evangelical (e.g. Duguid 1972), but today operate covertly to ensure that the only significant written texts accessible to Anangu are Bible translations, and the only explanations available for social change and programs for salvation are evangelical ones. Evangelism in general has been successful in part because biblical discourse is meaningful to Anangu. In the terms developed here, it realises a pre-modern socio-semantic code which resonates with the pre-agricultural code of Western Desert culture. For example, it presents generalisations about the nature of human sociality and spirituality in ways that are familiar to indigenous speakers, as kernels of abstract meaning embedded in stories about people, kin and concrete events, in similar fashion to the stories of traditional cosmology. This is possible because the socio-semantic codes of Western Desert and pre-industrial European cultures share enough common patterns, both of semantic potential and realisational structure, to be directly translatable.

No written mode has yet evolved in Australian languages, there are only orthographies produced by linguists as an alternative form of articulation to phonemes.⁴ The most significant texts written in indigenous Australian languages, outside of school 'vernacular literacy' readers, remain translations of Bible extracts. With few exceptions, texts in both these contexts are produced by, or under the direction of, non-indigenous missionary or teacher linguists, with assistance from indigenous informants. Another minor context in which vernacular literacy is used is in community newsletters, generally produced as part of adult education activities with non-indigenous educators. The mode in these newsletters and in school readers is simply speech written down, whereas Bible extracts are translated from

⁴ Linguists responsible for producing and promoting these orthographies have gone on to claim a few years later that 'written genres' are 'emerging' in Australian languages (e.g. Goddard 1990, Gale 1994). However the formalist morphologically oriented approach to language informing these claims does not provide these analyses with adequate tools for interpreting the differences between spoken and written modes of meaning discussed here and in Halliday (1989).

English that varies in mode, from more spoken to more written. The production and use of written vernacular texts in each of these contexts deserves further research, informed by an analysis of textual organisation.

The following Bible extract from Paul's letter to Ephesians translated into Pitjantjatjara, Text [1:7], illustrates the kind of data that is required for such a research project. The original English sentences are presented first, followed by the (anonymous) translations for which I have given a group rank English gloss. Written English features in the original include **nominalisations** in bold, *[[embedded clauses]]* in brackets, and relational or passive verbal groups underlined. The only one of these features available in Pitjantjatjara is embedded clauses functioning as qualifiers in nominal groups, e.g. *wati* *[[kuwari pitja-ntja]]* 'the men *[[coming now]]*'. Nominalised processes that function as abstract nouns in written English (such as *blessing*, *inheritance*, *purpose*, *counsel*, *praise* and *glory* from the text below) are not a feature of Western Desert discourse. This does not mean that processes cannot be nominalised (as 'gerunds' in traditional terms, e.g. *pitja-ntja* 'coming'), but that such weak nominalisations function only to qualify things; they cannot function as abstract participants in a clause. Likewise it is very difficult to translate a passive imperative relational process such as *Blessed be...*, *being predestined...* or *should be...*; the objectifying connotations of such constructions are also not a feature of Western Desert discourse. It is interesting to see then how the translators have attempted to render these written features into a spoken language. In the place of nominalised participants with long embedded qualifiers, in passive relational clauses, the translators have used sequences of active clauses, with some embedding. Furthermore the potential for expansion of nominal groups in Western Desert is fully utilised, to an extent that is rare in spoken texts. However, despite all these resources, in verse 11 the translators have given up the attempt to accurately translate the dense English abstractions.

Text [1:7] Extract from *Ephesians 1*

EPHESUS-ALANYINA-NTJA TJUTA-KU NYIRI PAUL-ALU WALKATJUNKU-NTJA
book for many *[[dwelling at Ephesus]]* *[[Paul writing]]*

3 Blessed be the God and Father of our Lord Jesus Christ, *[[who has blessed us with every spiritual blessing in the heavenly places in Christ]]*...

i *Walkun-ma-la nganampa Mayatja Jesu-ku Christa-ku Goda-nya Mama-nya;*
let's praise-! our boss God the Father of Jesus Christ

ii *panya nyara paluru -lanya Christa-la pukul-ma-nu,*
that is the one us with Christ did make happy

kurun-itja uwankara-ngka, ngura ilkari-tja-nguru.
in everything spiritual from the heavenly place

11 In Him also we have obtained **an inheritance**, being predestined according to **the purpose** of Him *[[who works all things according to the counsel of His will]]*.

i *Uwankara paluru mukuringku-la kuli-ntja mulapa*
everyone *[[he loving thinking truly]]*

pulka-ringku-pai Christa-la
does become great with Christ

12 That we [[who first trusted in Christ]] should be to the praise of his glory.

+iiiα *ka nganana-nya, panya nganmanypa palu-mpa mukuringku-pai tjuta,*
and us that is [[first him does love]] many

ngurkanta-nu,
did choose

β *palu-nya pital-tji walku-ntjaku.*
him trustingly to praise-SW

The abstract concepts around which this passage weaves its message include the notions of God's purpose, of the counsel of His will, of the inheritance of the earth he is held to have bestowed on those who first trusted in him (i.e. the early Christians), and their consequent predestination in both earth and heaven. This wealth of references cannot be unpacked in a simple translation, but would require not simply a long explanation for the uninitiated, but an apprenticeship into the doctrinal system that underlies these concepts, not unlike the apprenticeships required to understand the deeper significance of the *Kipara* myth, or of specialised texts in modern fields such as science, history or social sciences. The following example, Text [1:8], is translated from a more spoken passage, a narrative of Paul's vision of the apocalypse. Here the translation is simpler, involving only a shift from embedding to clause complexing, since there are no abstract nominalisations in the original.

Text [1:8] Extract from *Revelations 20*

TJUKURPA JOHN-TA UTI-RANINTI-TJA
story to John [[teaching by showing]]

1 Then I saw [[an angel coming down from heaven, [[having the key to the bottomless pit and a great chain in his hand]]]].

iα *Palulanguru -na nya-ngu,*
from that I did see

'β *angelpa ilkari-nguru ukalingku-nyangka*
an angel from the sky descending-SW

+ii *ka paluru mara-ngku karpin-tjikitjangku kanyi-ningi ankapa wituwitu*
and-SW he (in) hand to bind up-SM was holding strong handcuffs

+iiiα *munu key kulu kanyi-ningi*
and-SM also a key was holding

β *piti ngati pulka pati-ntja ala-ntjikitjangku*
a very deep pit [[closed]] to open-SM

2 He laid hold of the dragon, that serpent of old, [[who is the Devil and Satan]], and bound him for a thousand years.

iβ *Munu angelpa paluru mamu panya wanampi purunypa witi-ra*
and-SM that angel that demon like a *wanampi* serpent holding-SM

α *ankapa-ngka karpi-ra tjarpatju-nu piti ngati pulka-la*
with handcuffs binding-SM did insert in a very deep pit

3 And he cast him into the bottomless pit, and shut him up, and set a seal on him, so that he should deceive the nations no more till the thousand years were finished.

+iβ *Munu angatju-ra*
and-SM blocking-SM

α *key-ngka pati-ra wanti-ngu piti palu-la*
with a key closing-SM did leave in that pit

χ *rawa nyina-ntjaku kuli 1,000*
always to dwell-SW 1,000 summers

δ *anangu tjuta paka-ra ngunti kura-ntjaku-tawara*
the people rising-SM falsely so as not to deceive

ii *Wanampi nyanga paluru ini Satan-nga.*
the name of this here *wanampi* serpent Satan

The subject matter of this extract is typical of much of the apocalyptic fundamentalism that is widely proselytised in indigenous communities today, often accompanied by exhortations to abandon traditional religious practices that are characterised as 'satan worship'. In this passage 'the dragon, that serpent of old, who is the Devil and Satan' is translated as *wanampi*, the sacred mythic serpent of indigenous Australian religions. However it is passages such as this that will resonate more strongly with the coding orientations of many Anangu, because the 'relay of cultural transmission' of such narratives is not an elaborated code, unlike the preceding passage. This means that while Anangu have ready access to the messages in the apocalyptic narrative, they are less likely to have access to the more elaborated religious concepts in the letter to Ephesians, and also to the elaborated concepts of contemporary written discourses. Without access to written discourses, Anangu are generally excluded from contemporary critiques of extreme fundamentalist evangelism, and from alternative explanations for social change offered by history, social science and politics. Whether or not it is intentional, this exclusion from literate discourses has been one of the effects of promoting vernacular literacy curricula in Anangu community schools to the expense of high level English literacy.

It is possible for Australian languages to develop written modes, but only if the contextual pressures exist to do so. If this happens, it will come from speakers of indigenous languages who are also familiar with ways of meaning in written English, who have access to elaborated coding orientations in both community languages and English (see Halliday's 1993 discussion of issues in language planning). However this will only occur when schools become serious about providing indigenous students with access to the highly literate discourses of academic fields. Up until now indigenous communities' access to further education, and to alternative models and programs of social change, has been severely restricted by the literacy curricula in their schools, including 'vernacular literacy' (Jabarrngardi Poulson 1988, Martin 1991, Lester 1993), and the 'progressive' literacy methodologies in Australian schools in general (Gray 1986, 1990, Rose 1999, Rose, Gray & Cowey 1999). The consequences of ineffective literacy methodologies in schools are that indigenous students in remote communities are three to eight years behind their non-indigenous peers, and hence junior secondary schooling is offered to only about ten per cent of Anangu children. The long-term result of this failure to provide access is that almost all jobs in the communities that require formal education are still held by non-indigenous employees, and

associated problems including poverty, ill-health, alcohol and substance abuse and imprisonment have become endemic.

1.4.3 *Phylogenesis*

In addition to the post-colonial forces of linguistic and cultural change discussed above, the following section discusses language change under three headings. It begins with a brief survey of some phylogenetic mechanisms operating in the traditional culture that are observable today. Secondly some current approaches to language classification and phylogenesis, both within and beyond Australia, are outlined and critiqued. Finally alternative approaches to studying linguistic phylogenesis in Australian cultures are proposed.

1.4.3.1 *Some contemporary processes of language change*

The Western Desert culture's own theory of grammatics is understood and taught tacitly, through example rather than labelling of grammatical categories.⁵ The metalinguistic lexicon includes the names for register varieties, and the word *ini*, meaning name or word, but no other terms for parts of speech. Nevertheless the grammatics is highly regulated across each dialect group, and extremely conservative. Adult speakers are acutely aware of differences between correct forms in their own and other dialects, as well as between registers, and approximations by language learners are continually corrected. This awareness is codified in Western Desert dialect names which are based on a distinguishing lexical item, such as Pitjantjatjara, literally having the word *pitja-ntja* 'coming', or Yankunytjatjara having the word *yanku-nytja* 'going'. This conservatism is focused on overt features such as the pronunciation of words, and morphology of grammatical functions in clauses, as well as on overt features of interpersonal meaning such as the resources for expressing deference discussed above. As in the folk grammatics of other cultures, these features are perceived as strictly rule-governed, and taught as such, even though speakers are often aware that they may not follow the rules of pronunciation and morphology in natural speech. For example, the word for older sister *kangkuru* is enunciated in isolation with three distinct syllables as /kang/ku/ru/, but in discourse is typically shortened to two syllables with the middle vowel reduced, as /kang/k'ru/; or the seven syllable verb complex *ankuntjaku ngarinyi* 'expected to go' is typically expressed as five syllables /an/kun/tjak'nga/rin'/. Even the name *Pitjantjatjara* is typically pronounced in discourse with only three syllables as /Pit'n'tja/ra/.⁶

As a result both of collective regulation of overt features, and of unconscious reproduction of covert patterning, the lexicogrammar appears to have been highly resistant to change. The degree of linguistic continuity over deep time is suggested by the fact that all Australian languages form a relatively homogeneous group (Dixon 1980), despite the potential for variation at all linguistic ranks and strata over the probable forty thousand years of modern human occupation of the continent.⁷ The same highly regulated conservatism that is applied

⁵ Walsh (1999) discusses traditional metalinguistic items in Australian languages, including items from Western Desert appearing in Douglas (1988), that denote phonological characteristics of speech varieties.

⁶ The truncated pronunciation of the word Pitjantjatjara in discourse is reflected in Tindale's title for his 1972 paper, *The Pitjandjara*.

⁷ The relative homogeneity of the Australian language family was first suggested by Capell (1956). It has since been sub-classified on lexical and morphological criteria into two general groups, including the so-

to the production of material artefacts, and to reproductions of religious texts and ceremonies is also applied to speech. The depth of time over which both material and discursive items were reproduced in Australian cultures is suggested by the Australia-wide distribution of cognates for wooden implements such as *kali* 'boomerang', *katji* 'spear', *miru* 'spearthrower' and *wana* 'digging stick' (Evans & Jones 1997).

An exception to the general principle of lexicogrammatical conservation in the Western Desert is borrowing of words into a dialect from neighbouring groups, and more recently from English. One motive for borrowing occurs when a word resembling the name of a deceased community member is temporarily replaced until the community's sense of loss of the person fades. In the case of key community members who die in their prime, this may last for over a decade, but it appears that the original word is always brought back, and its replacement dropped (see Alpher & Nash 1984). Another motive for borrowing, especially of English loan words, is to denote new classes of entities, qualities or processes, which may be distinguished morphologically from native words. Until recently this was a very minor motive for borrowing. However an early example of a new entity is *makiti* 'rifle', derived across many language boundaries from the English word 'musket', and entering the language generations before Europeans reached the area. (The inefficient muzzle loading muskets were replaced by breech loading carbine rifles around 1850.)

1.4.3.2 *Some current historical linguistic models*

Conservatism of cultural and linguistic reproduction is particularly marked in indigenous Australian contexts where there is no evidence of the social upheavals characteristic of the past seven millennia in post-glacial Eurasia. This is an important point which often goes unrecognised in discussions of phylogenesis in Australian linguistics. Instead, the model of social and linguistic expansion developed in the Indo-Europeanist field over the past century tends to be applied to Australian cultures, without adequate consideration of fundamental differences between the stratified expansionary cultures of Eurasia and the egalitarian localised cultures of Australia. There is no reason to assume that the organising principles of Australian cultures were any different in the deep past than they are today, since there is no evidence that socio-economic processes differed significantly. However, schools of Australianist linguistics and archaeology have devoted considerable energy to arguing for hypotheses of social and linguistic expansions by some groups over others, on the Indo-European model. An outstanding recent example of this is Evans and Jones (1997) who speculate that the linguistic homogeneity of the Pama-Nyungan group represents a complete replacement of older linguistic "substrates", spreading across the continent from "a Pama-Nyungan homeland south of the Roper River" between 5,000 and 3,000BP.⁸

called 'Pama-Nyungan' group which covers most of the continent, and more diverse 'non-Pama-Nyungan' groups in northern WA and NT (e.g. O'Grady et al. 1966, Blake 1988, Evans 1988, Harvey 1997). Western Desert is classified as a member of the 'Nyungic' subgroup of the Pama-Nyungan group (e.g. O'Grady & Fitzgerald 1997). Controversy currently rages in historical linguistic circles as to whether Pama-Nyungan should be classified as a group or a family, and so whether Australian language constitute a family or a phylum (e.g. McConvell & Evans eds 1997).

⁸ Evan and Jones stop short of claiming a population expansion in a "simplistic material model of conquest". They propose that a 'proto-Pama-Nyungan' language completely replaced all other languages across three-quarters of the continent, by asking us to "imagine a scenario" in which its speakers controlled certain "fictitious" items that had greater "ceremonial prestige", and used marriage "as a tool for securing residence rights". This hypothesis requires the same degree of complete language replacement over two millennia, achieved by violent conquest and domination in Indo-European and other stratified expansionary cultures, to

McConvell (1997) on the other hand proposes a contradictory hypothesis for an origin for the 'Nyungic' sub-family in the south-west of WA.

Such a Eurasiocentric approach to phylogenesis has also led commentators in other fields to speculate on the indigenous 'colonisation' of Australia forty millennia ago as though it paralleled the destructive invasions of European colonisers in the modern period (Flannery 1994, Miller 1999). Such hypotheses are borrowed from American archaeologists who speculate that the indigenous North Americans wiped out the Pleistocene megafauna in an overhunting 'blitzkrieg' (Martin cited in Levy 1999). What is not adequately taken into account in these hypotheses is the nature of the cultural relationships between known hunting-gathering peoples and their natural and social environments. All these cultures emphasise extreme conservatism of both resource exploitation and social reproduction, and all have strong emotional and religious ties to the lands they occupy. These could hardly be more different from north Eurasian expansionary cultures such as the Indo-Europeans, Turks and Mongols, all originating in mounted pastoral nomadic cultures that were stratified into labouring, warrior and ruling fractions. A more appropriate model than Indo-European expansionism, for the original demographic expansions in Australia, may be the gradual spread of agriculture into hunting-gathering Europe which, according to Gimbutas (1990) and Ammerman and Cavalli-Sforza (1987), preceded the Indo-European pastoral era, and took three thousand years from its beginnings in the south-east to spread to north-western Europe. This rate of expansion was only eighteen kilometres per generation, probably moving slowly up the river valleys as families grew and gradually exploited larger areas.⁹ Such a

also be achieved by one language group in the egalitarian system of Australian hunter-gatherers, by means of strategic manipulation of ceremonial betrothals. The medium of cultural exchange is considered by Evans and Jones (1997) for their hypothesis of linguistic and cultural replacement, but is seriously distorted to fit their hypothesis. There is no evidence that ceremonial exchanges have ever been used by groups of indigenous Australians to dominate others, as Evans and Jones speculate occurred suddenly five thousand years ago.

Speculations such as Evans and Jones's conflict with indigenous Australians' own view of their cultures and languages as extremely ancient and stable, changing gradually through exchange between groups (but not by expansion of one over another), and with their view of betrothal as establishing sacred bonds of mutual reciprocity. They also conflict with ethnological observations of the deep conservatism of indigenous cultural reproduction and inheritance (e.g. Strehlow 1947, Tonkinson 1978, Myers 1986, Harvey 1997), and with biological evidence of gene frequencies in indigenous Australia, which drift in several different directions across the continent, none of which match Evans and Jones's hypothesis (Cavalli-Sforza et al. 1994). There is no material reason for connecting minor changes in lithic technologies with wholesale language replacement, as Evans and Jones attempt to do; rather it is produced as slender evidence for an untestable hypothesis.

One interesting and useful element in Evans and Jones (1997) is the lexical evidence presented of widespread names for tools in both Pama-Nyungan and non-Pama-Nyungan languages, the kind of research that could contribute to a program of mapping the material and semiotic relationships of Australian cultures. Such descriptive and theoretical research with indigenous communities over decades has provided an invaluable record for contemporary indigenous Australians who are interested in understanding and recovering the relations between their communities before the European invasion. Untestable speculations about 'colonisation' and 'expansion' by indigenous groups in Australia are merely projections of the European imperial experience onto the peoples they have colonised.

⁹ This model is disputed by influential Cambridge archaeologist Colin Renfrew who prefers a hypothesis that Indo-European languages arrived in Europe with agriculture, although this conflicts with both well-established evidence of the age of Proto Indo-European at 5,000BP, and the archeological evidence presented by Gimbutas (1990). We could note that although Renfrew's preferred model conflicts with the body of evidence, it harmonises with the traditional archeological narrative of British civilization's origins in the Near East via Athens and Rome. Taken together with the construction of indigenous origins by some Australian and North American schools of archaeology and linguistics, it is hard not to posit an ideological motivation for such hypotheses, particularly where they arise in the two nations which were built more than any other on the genocide of indigenous peoples, as well as in their mother country that was for centuries the greatest European beneficiary of these genocides. While conservative British archaeology reconstructs Indo-

gradual rate of demographic expansion also appears to have been the pattern as modern human groups spread across Eurasia in the Upper Palaeolithic Revolution of 45–40,000 years ago (Mellars & Stringer 1992). It seems likely that the origin of indigenous Australian cultures is associated with this demographic and cultural event, since the most probable date of human arrival in Australia is approximately 40,000BP (e.g. Field 1996),¹⁰ and the survey here demonstrates that Australian languages share a comparable grammatico-semantic potential with Eurasian languages that is likely to be associated with the cultural/symbolic revolution of the Upper Palaeolithic (Whallon 1992).

However, partly because of the time depth of Australian languages, research into typological relationships outside of Australia has been strongly opposed by Dixon who claims that “there is absolutely no evidence for a genetic connection between Australian languages and anything outside the continent; there is not even the remote ‘possibility’ that scholars could argue about” (1980:238). Dixon’s reasoning is based on an assumed fixed rate of change of languages such that “after three or four thousand years of separation genetic links are no longer recognisable” (1980:237), a rate that is extrapolated from the Indo-European experience. Yet after ten times this duration, Australian languages have changed so little that they are universally accepted as a valid taxon, on the lexical, morphological and phonological criteria of traditional historical linguistics, as Dixon also accepts. Harvey (1997) argues that the homogeneity of the Pama-Nyungan group is suggestive of extremely slow rates of linguistic change in Australian cultures. There is no conclusive evidence that rates of linguistic change at word, morpheme and phoneme ranks are fixed; rather rates of change are likely to vary between the two extremes of the rapidly expanding Indo-European family (five to eight thousand years old) and the extremely stable Australian family (forty thousand years old). Furthermore, these are the ranks that change most rapidly; at higher ranks of word group, clause and discourse semantics, it is far more likely that genetic relationships with languages outside the continent will still be apparent.

Interest in phylogenetic relationships beyond Australia has been revived by Nichols (1997) with a comparative study of various syntactic classes in Australian and Papuan languages. Nichols surveys a range of features that are shared between various Papuan languages and various Australian languages. Even wider connections are proposed for several Australian lexicogrammatical items by Ruhlen (1994). Unfortunately Nichols’s and Ruhlen’s methods are limited in their scope because they select fragments of structural features that they do not relate to the language systems as a whole. Nevertheless it seems unlikely that the Australian and Papuan families are not genetically related. Features shared between the families, that are less apparent in neighbouring Austronesian languages, include systems of ‘switch-reference’ conjunctions for identifying the Medium as same or different from the preceding clause. These systems are integrated with clause complexing resources that construct additive series of finite clauses and enhancing non-finite series culminating with a finite clause, as illustrated in Text [1:2] above. Other Papuan and Australian examples of these features are described by Gleason (1968), Wurm (1975), Martin (1983), Foley (1986), Austin (1981, 1988), McGregor (1990), Rose (1993, 1998).

European ancestry as peaceful farmers, Australian and United States archaeology and linguistics reconstructs indigenous ancestors as rapidly expanding environmental vandals.

¹⁰ Claims of archaeological sites exceeding 50,000BP in Arnhem Land have been made by Rhys Jones who is also the author of the speculations on ‘Pama-Nyungan expansionism’ discussed above, but these dates are strongly contested. The oldest reliable record of modern human cultures remains the Lake Mungo site dated at >30,000BP.

An 'Indo-Pacific' phylum has been proposed by Greenberg (1966), on the basis of large-scale multilateral lexical comparisons, that includes the Papuan languages of the Papua-New Guinea/Irian Jaya mainland, and islands of western Melanesia and eastern Indonesia. Also included in Greenberg's phylum are the languages of the Andaman Islands, west of lower Thailand. If this grouping is correct, then the Australian, Papuan and Andaman languages may represent a linguistic macro-phylum that once occupied southern south-east Asia and Australia in late Pleistocene times, before the ending of the last Ice Age triggered waves of southward migrations of peoples into the region speaking Austronesian, Khmer and Daic languages. Evidence for this possibility comes from population genetic studies which group south-east Asian, Papuan and Australian populations together on the basis of a number of shared gene alleles (Cavalli-Sforza et al. 1994), as well as historical evidence of continuing southward movements by Austronesian peoples.

1.4.3.3 *Potential alternative approaches to phylogenesis*

Studies of phylogenesis of Australian languages and cultures could benefit from a model of linguistic change that is based on what is known about contemporary Australian cultures. It appears from the speculations produced over recent decades that linguistics and archaeology tend to be insulated from the knowledge base of ethnographic disciplines. Speculations on expansions by single groups, that dominate or replace others, are inconsistent with what is known of current cultural relationships between indigenous Australian groups, and processes of semiotic change within groups. For example, the *tjilkatja* ceremonial system of the western continent travels from the Southern Ocean to the Kimberley region in the course of one year, and vice versa. Through such ceremonial systems not only betrothals are exchanged, but also songs and rituals, which may also be linked to innovations in kinship practices. Such processes of cultural diffusion are well documented in the ethnographic literature. These exchange systems once operated across the whole continent, following the tracks of major Dreaming ancestors such as the Red Kangaroo. They undoubtedly played a major role not only in the spread of cultural innovations, but more significantly for the discussion here, in the maintenance of continent-wide linguistic and cultural homogeneity and stability; that is, pressures to conserve and reproduce cultural traditions came not only from within local groups, but from the system as a whole. These large-scale cultural pressures for conservatism and homogeneity can also be seen in stratified Eurasian societies, but are perhaps more marked in the Australian hunting-gathering context. It is possible that the Australian system can provide a model for interpreting historical-cultural relationships between cultures in general, and perhaps a sociohistorical mechanism for the so-called 'universal' features of languages that does not depend on theories of genetically programmed 'language acquisition devices' that have become increasingly untenable (Edelman 1992, Deacon 1997).

In contrast to formalist Eurasiocentric models of linguistic change, Halliday (1993) offers an historical-material perspective for interpreting linguistic phylogenesis over deep time, that we can apply to the interpretation of differences and commonalities between Western Desert and contemporary European languages. Halliday suggests a series of major evolutionary events in the meaning potential of languages in the 'Eurasian culture bloc', associated with major socio-economic changes, including 'settlement', Iron Age technological development, and modern industrialisation. Each of these material developments are also associated with major upheavals in social organisation, including respectively:

- i) the beginnings of social stratification into producing, enforcing and ruling fractions,
- ii) the growth and expansion of ancient empires that were bureaucratically organised, and
- iii) the emergence of modern imperial expansion and bureaucratisation in western Europe.

Of course all modern languages have evolved from those spoken by our hunting-gathering ancestors, and as Halliday (1993) describes for those few languages that have evolved a written mode, "Overlaid, but not obliterated, the pre-settlement grammar is still there in the language - but it is no longer the predominant mode of meaning."

Stability in hunter-gatherer societies is dependent on reproducing equilibrium in relationships between groups and with their natural environment over deep time, particularly in arid environments (Whallon 1992). Long-term stability is achieved by means of scrupulous replication of semiotic capital over many generations, that absorbs periodic 'innovations' on its margins.¹¹ It is in this context of reproduction of semiotic capital that language has evolved, not simply as a resource for social exchange in the here and now, but as an adaptive technology for the long-term viability of hunter-gatherer societies. In the grammar of each language, thousands of bygone generations have encoded systems of messages that future generations need to survive. It is the more general messages that are coded most covertly in a language, i.e. ways of enacting speakers' subjectivity, and construing their experience of reality, that are least accessible to conscious reflection. Language operates on many levels beneath the conscious awareness of its speakers to reproduce their culture, through patternings of rhythm and tone, and syndromes of grammatical and discourse semantic features.¹² The unconsciousness of cultural reproduction in language is as much a feature of expansionary stratified cultures that have evolved relatively recently from their hunter-gatherer ancestors, and achieve 'meta-stability' by continually assimilating cultural and ideological differences of dominated groups (Lemke 1993). It is a major challenge for Western Desert cultures that their traditional processes of cultural reproduction are now confronted with the immensely powerful resources of one such expansionary stratified culture for absorbing cultural difference.

¹¹ Harvey (1997) argues for a 'considerable time-depth' for linguistic innovation in Australia, even in the linguistically diverse northern regions, and questions Sutton's (1982) hypothesis that the role of language in social classification engenders innovation.

¹² Lévi-Strauss (1970–1978) argues for the great time depth of reproduction of what he calls the 'semantic fields' of hunter-gatherer mythology, as a consequence of its functions in reproducing ideological categories.

2 *Theory and description*

The aim of this chapter is to make explicit the relationships between the description of Western Desert language that follows in Chapters 3 to 7, and the theoretical framework employed to inform the description, that of systemic functional linguistics (SFL). The chapter is organised in the following way. Firstly an overview of the SFL model of language is presented. This presentation begins with a discussion of paradigmatic and syntagmatic organisation, followed by a discussion of the stratification of language as phonology, lexicogrammar and discourse semantics. These axial and stratal perspectives are then elaborated from the metafunctional perspective of interpersonal, ideational and textual modes of meaning, and within each metafunctional region, systems and their structural realisations are summarised at each rank within phonological, lexicogrammatical and discourse semantic strata.

Following this overview, the interpretation of the language by stratum, rank and metafunction is displayed. This summary begins with the lowest phonological rank of phonemes, and proceeds up through the ranks of syllable, foot and tone group. This is followed by a similarly rank-based section on lexicogrammar, from morphemes through words and word groups to clauses, and concludes with a brief discussion of ranks in the discourse semantic stratum. Sequencing the discussion in this fashion has a number of benefits. Beginning with phonological ranks allows us to display the set of features in articulation, rhythm and tonicity which contribute to the realisation of lexicogrammatical functions. This means that, because paradigms of these features have been shown, text examples in the following chapters will be accessible to the reader. In particular it will be possible for the reader to relate graphic symbols used in the examples, including orthographic conventions for phonemes and symbols for tone contours and tonic focus, as well as stress patterns, to the phonological patterns of the language. Secondly, since, as was shown in Chapter 1, semantic functions are realised by the correlation of features of phonological and lexicogrammatical features, it is useful to have presented the relevant phonological features before moving on to the grammatical features with which they correlate. Thirdly, since discourse semantic systems are the least explored regions of Australian languages, and so the least familiar to a general readership, these are presented following the lexicogrammatical systems that realise them. Although this approach begins like formal grammars with lower ranks in phonology and lexicogrammar, it differs significantly from a formalist rank-based approach, since it treats features at each rank of lexicogrammar as metafunctionally motivated, as well as features at the rank of tone group in phonology, and it contextualises features of phonology and grammar in their discourse semantic functions.

2.1 Overview of the model

The SFL perspective on language as a resource for enacting, construing and presenting meaning, privileges socio-cultural motivations for speakers' selections from systems of linguistic resources in the unfolding (inter)act of discourse. Language is construed in this theoretical framework as a socially constructed meaning-making resource that evolves to enable members of a culture to enact their social relationships, to construe their individual and collective experience of reality, and to phase these enactments and construals together as discourse that is meaningful in its social context. The purpose of a systemic functional approach to description is to display the grammatico-semantic options available to members of a culture to draw on in the process of social discourse. For these reasons, the descriptive methodology I have used here takes whole texts as its points of departure in each region of meaning, then displays the systems of options available for construction of texts in the semantic region, and finally presents the features of these systems as sets of grammatical examples out of context of extended texts, in the traditional manner of linguistic descriptions. However almost all of these grammatical examples are drawn from actual instances of recorded Western Desert discourse.

Although the most detailed body of descriptive work in a systemic functional framework has to date been in English, the evolution of systemic theory has been grounded from its beginnings in studies of non-European languages, and has continued to evolve as it is used to interpret more and more languages from diverse regions. To begin with, its origins were profoundly influenced by Halliday's (1956, 1959) early studies of Chinese, whose patterns of grammar and intonation differ so significantly from European languages, particularly from inflecting languages such as Latin on which so much of Europe's linguistic traditions are based (see de Beaugrande 1997, for discussion of the influence of non-European languages on functional linguistics in general). Halliday was further influenced by Whorf's work on Hopi (1938, 1956), and his observations that 'fashions of meaning' realised in Native American grammars differed in important respects from those of 'Standard Average European' languages (Halliday, pers. comm.). These observations included, for example, the indigenous preference for unfolding verbal over 'objectifying' nominal representations of time, illustrated above for Western Desert in Chapter 1. Crucially for the model of language in social context, Halliday was influenced by Malinowski's stratified model of context as situation and culture (Malinowski 1923/69), which enabled both the language system and its instantiation as texts to be systematically contextualised. This has been considerably developed in the model of context presented in Martin (1992), which has facilitated the contextualisation of Western Desert language here.

SFL theory has continued to evolve through descriptions of diverse languages, including African languages such as Beja (Hudson 1981), Mbembe (Barnwell 1969) and Akan (Matthiessen 1995), Indo-European languages other than English, such as Urdu (Hasan 1984), French (Huddleston & Uren 1981, Caffarel 1995, in press), Dutch (Degand 1996) and German (Steiner & Ramm 1995, Steiner & Teich in press), the Finno-Ugaric language Finnish (Shore 1992, 1996) the Austronesian language Tagalog (Martin 1981, 1990, 1993, 1995, 1996a, 1996b, 1996c, in press), including comparisons with the Papuan language Kâte (Martin 1983), the Australian languages Kuniyanti (or Gooniyandi) (McGregor 1990) and Pitjantjatjara (Rose 1991, 1993, 1996, in press), the Dravidian language Telugu (Prakasam in press), Chinese (Fang, McDonald & Cheng 1995, McDonald 1996, Halliday &

McDonald in press), Japanese (Thomson 1994, Hori 1995, Teruya in press) and Vietnamese (Min Duc Thai in press).¹

SFL has also evolved with a broad range of social applications outside of academic linguistics as its goals. First and foremost have been its applications in education, developed to enable learners to recognise and use the features of a language from the perspective of the meanings they realise, and their functions in social contexts. Equally relevant to the descriptive task here is that SFL continues to evolve as a resource for describing the organisation of culture as a social semiotic system realised in language (e.g. Halliday 1978). More recently, as the field has grown and descriptive work on languages has diversified, it has been evolving as a tool for typological studies, for comparing resources for meaning and their patterns of realisation across many languages. Today typological work in SFL includes a wide range of languages but is conducted on different principles to typological studies in formalist traditions, since criteria for comparison are not primarily syntagmatic features such as word order, case marking or other 'morpho-syntactic' features, but recurrence and variability in the paradigmatic organisation of meaning potentials. As Matthiessen (1995:58) suggests, "language typologies can be interpreted as **meta-paradigmatic** descriptions - descriptions of what options are possible in the organisation of a grammatical system, i.e. what the dimensions of variability are, and of whether these options tend to co-occur or not".

In order to describe the complex organisation of language functions from various angles, SFL employs the general theoretical categories of system and structure, stratification, metafunction, rank, delicacy, realisation and instantiation. These are generalised categories whose organisation varies across languages, but which are not grounded in any one language. The general theoretical categories are neutral with respect to contemporary natural languages, but the descriptive categories developed in this framework are specific to each language (Halliday 1996a, Matthiessen & Nesbitt 1996). Using these tools, I have been able to offer a rich description of the potential for meaning in the Western Desert language. It is my hope that other workers in the Australianist field will also recognise the potential of such

¹ It is important to make this point, that SFL has evolved in the context of describing many different languages, since there is a widespread misconception that SFL is biased towards English on one hand, and theory on the other. For example J. Harkins, a student of R.M.W. Dixon's formalist approach to Australian languages descriptions claims (1994:192):

The "sociosemantic" or systemic-functional approach of Halliday (1973, 1978) appears to offer a way of relating linguistic form to functional and social context. However, this method relies upon certain predetermined semantic, pragmatic and discourse ("ideational", "interpersonal" and "textual") categories, which may not be applicable across cultures...Halliday first sets up a system of categories, in his case a highly complex system of components that he sees as relating to the linguistic system and the social system (1978:69, 125-126). He then explains how his data (1975) fit into these categories.

Matthiessen and Nesbitt (1996) critique assumptions that formalist descriptive methods are 'theory neutral' and that formalist descriptive categories are transparent conduits for 'data'. Assumptions that such data is either theory or language neutral ignore, for example, the historical basis of formalist labels in medieval grammars of Latin (see Dixon 1972, 1980, reviewed in Appendix 2, and in Butt 1996). The characterisation of Halliday's approach as anglocentric is inaccurate, as the following explanation from Halliday (1994a: xxxiii) makes clear:

I remarked earlier on the tendency to ethnocentrism in modern linguistics; and there is a danger of assuming that the categories used here are valid in the description of any language. Material contained in these chapters has been used as a basis for studying a number of languages; and the researcher often begins by finding the same set of categories, because if one looks for a particular category in a language one will usually find it: early European grammarians found pluperfect subjunctives in languages all over the world. Then he starts again, and asks: how would I have interpreted the grammar of this language if English had never existed?, and this time he may refuse to see anything in common at all, but in the end a balanced perspective is reached.

a methodological repertoire, for enriching our understanding of Australian languages and cultures.

2.2 Paradigmatic and syntagmatic organisation

2.2.1 The system network

Language is theorised in SFL in terms of choice, in contrast to the formalist focus on constraint, more specifically as sets of resources for exchanging meanings rather than rules for producing allowable grammatical structures. It follows that the primary mode of organisation of language in this model is paradigmatic, as systems of alternative or simultaneous options in meaning. The syntagmatic organisation of linguistic structures is secondary, motivated by the location of features in a system. The relationship between system and structure is realisational; linguistic function structures realise features that are options in systems. Paradigmatic organisation of language is represented in SFL as networks of choices, known as system networks. Each option in the system, known as a feature, is accompanied by a statement of how the feature is realised as a function structure or structural item. Matthiessen (1995:13) puts this as follows:

In order to express combinations of selections from the system network, another mode of organisation is needed: items and structures... structural fragments and items are specified by means of realisation statements that are associated with options in the system network. The system network thus serves to define the contexts in which structure defining realisation statements are specified.

System networks are a powerful means of representing the complexity of linguistic options. They are able to represent syntagmatic together with paradigmatic organisation, to move in delicacy from general to specific options, and to incorporate multiple simultaneous options. An illustration is Figure 2.1, which shows the general options in the simultaneous clause rank systems of MOOD and POLARITY in Western Desert. (These systems are simplified for this presentation.)

The general entry condition for this system network is a finite clause, which enables a simultaneous selection from systems of both MOOD and POLARITY (non-finite clauses do not select for MOOD). This means that for any selection in MOOD, a choice in POLARITY is also available. Within each of these systems, selections are then 'either/or', e.g. either *imperative* or *indicative*. Each selection leads to a more delicate choice, until the options are exhausted. This network consists of six systems, whose names are in small capitals. Each system has an **entry condition** which opens up a choice of two or more possible **output features**, which represent a proportionality, such as imperative/indicative. The advantages of a systemic perspective are enumerated by Halliday (1996a:21) as follows:

- i) The paradigmatic representation frees the grammar from the constraints of structure; structure, obviously, is still to be accounted for, but structural considerations no longer determine the construal of the lexicogrammatical space...
- ii) Secondly, and by the same token, there is no distinction made in a paradigmatic representation, between describing some feature and relating to other features: describing anything consists precisely in relating it to everything else.

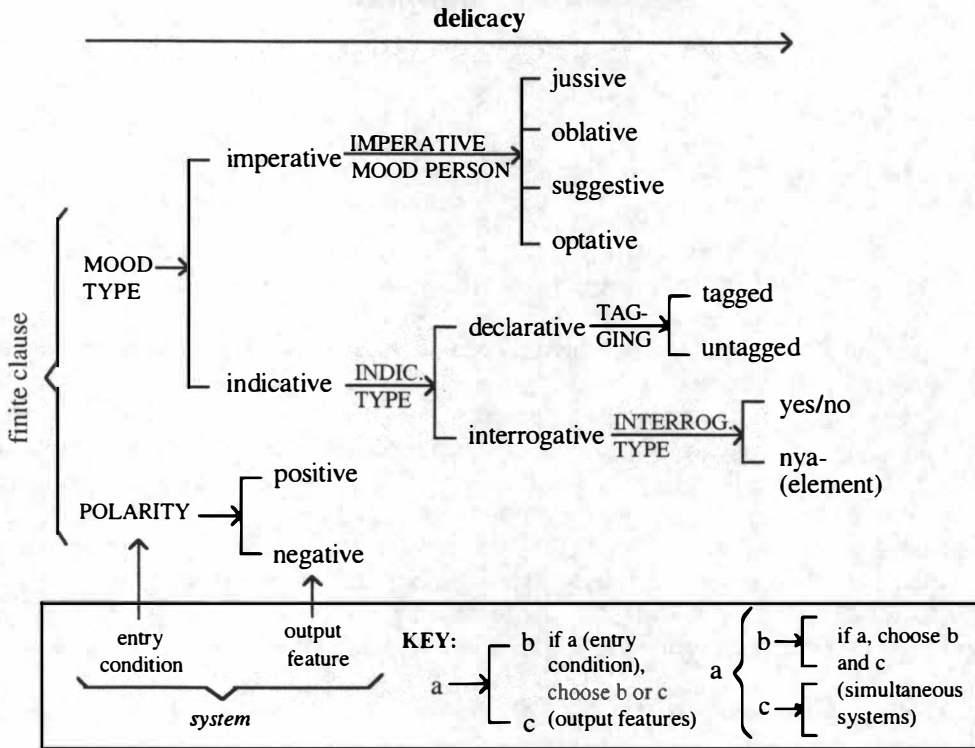


Figure 2.1: System network exemplar: MOOD and POLARITY
(after Matthiessen 1995)

- iii) Thirdly, the paradigmatic mode of description models language as a resource, not as an inventory; it defines the notion of “meaning potential” and provides an interpretation of “the system” in the other, Saussurean sense - but without setting up a duality between langue and parole.
- iv) Fourthly, it motivates and makes sense of a probabilistic modelling of grammar. Probability can only be understood as the relative probabilities of the terms in a (closed) system.
- v) Fifthly, representing grammar paradigmatically shapes it into a lexicogrammar; the bricks-&-mortar model of a “lexicon” of words stuck together by grammatical cement can be abandoned as an outmoded relic of structuralist ways of thinking.

2.2.2 Proportionalities and paradigms

Systems define grammatical **proportionalities**, which are conversely an essential tool for identifying systemic options in the process of language description. Proportionalities bring out common and contrasting features realised by a set of structures. For example, *I descended* is related to *did I descend?* in the same way as *you climbed* is related to *did you climb?* In the following example, the relation ‘is to’ is expressed by ‘:’ and the relation ‘as’ by ‘::’.

- i) *wati kutjara kuka-ku tati-nu* : ii) *wati kutjara kuka-ku tati-nu ::*
 two men for game did climb : two men for game did climb? ::
- iii) *minyma kutjara mai-ku ukali-ngu* : iv) *minyma kutjara mai-ku ukali-ngu*
 two women for food did descend: two women for food did descend?

It can be seen from this proportionality that clause (i) and (iii) share one structural feature, falling tone, that contrasts with a structural feature shared by (ii) and (iv), rising tone. What the structural proportionality expresses is the paradigmatic contrast between declarative and interrogative mood, notwithstanding other features, such as TRANSITIVITY choices of process, participants and circumstances.

It is the proportionalities embodied in the grammatical systems that are the crucial focus of investigation in a systemic functional survey. Proportionalities give us the descriptive criteria for the organisation of the language system. The categories of options for meaning this methodology displays are not given by traditional formal classes of structural items, such as noun, verb, subject or predicate, but by the functional contrasts brought out in proportionalities. Proportionalities can be expressed as **paradigms** that net in all the options available to two simultaneous systems. For example Table 2.1 displays outputs of general options in the simultaneous systems of MOOD TYPE and CONFIGURATION TYPE.

Table 2.1: Paradigm of CONFIGURATION TYPE by MOOD TYPE

CONFIG'N	MOOD				
	indicative			imperative	
material	<i>ngayulu</i> I	<i>ukali-ngu</i> did descend		<i>ukali-wa</i> descend-! (get down!)	
mental	<i>ngayulu</i> I	<i>palu-nya</i> him	<i>nya-ngu</i> did see	<i>palu-nya</i> him	<i>nya-wa</i> see-! (see him!)
verbal	<i>ngayulu</i> I	<i>palu-la</i> to him	<i>wangka-ngu</i> did tell	<i>ngayu-la</i> to me	<i>wangka</i> tell-! (tell me!)
relational	<i>paluru</i> he	<i>pilunpa</i> (is) quiet		<i>pilun-ari-wa</i> quiet-become-! (shut up!)	

2.2.3 *Delicacy and simultaneity*

2.2.3.1 *Delicacy*

The system network is ordered on a scale of **delicacy**, which means that selections to the right of the network are motivated by more general selections to the left. For example, if the output feature *nya-* is selected in INTERROGATIVE TYPE, this is motivated by the selection of interrogative in INDICATIVE TYPE, which is in turn motivated by the selection of indicative in MOOD TYPE. Each feature in a structure is selected via a pathway of choice points in a system network.

Ordering in delicacy of system networks enables the degree of detail in the description to be determined systematically. For example, the description could be limited to the general choice of MOOD TYPE, which would be the case if the recognition criteria for the proportionalities were limited to the morphology of verbs, i.e. either imperative or indicative

verb form, as in Table 2.1 above. On such criteria speech functions available to the language would be limited to either 'proposal' or 'proposition'. However if we look beyond verb morphology we find that the choice of imperative at clause rank leads to further options in the system of IMPERATIVE MOOD PERSON, i.e. in the person who is modally responsible for the proposal, either addressee, speaker, addressee+speaker or non-interlocutor, realising sub-types of proposals such as command 'you do it', offer 'I'll do it', suggestion 'let's do it', or oblation 'they should do it'. Likewise, the choice of indicative leads to the option of declarative or interrogative in the system INDICATIVE TYPE. There are then two options available in INTERROGATIVE TYPE, yes-no interrogatives which are distinguished from declarative clauses by rising tone, as exemplified in the proportionality above, and *nya*-interrogatives realised by the presence of a *Nya*-element (= Wh-element) and high falling tone. The first demands information about polarity and the second about the identity of some element of a clause. We could then potentially go further in delicacy and specify the types of *Nya*-element available, such as participant *nyaa* 'what?', circumstance *nyaa-ku* 'what for?', or process *nyaa-ni* 'what doing?'.

Delicacy enables us to relate grammatical choices to semantic variables systematically. For example the option of imperative or indicative mood realises a general semantic distinction between exchange of goods and services (proposals) or exchange of information (propositions). The option of declarative or interrogative realises a distinction between giving information (statements) or demanding (questions). The option of yes-no and *nya*-interrogative realises a distinction between demanding information about polarity (yes-no questions) or identity (*nya*-questions), and so on.

2.2.3.2 Simultaneity

Simultaneity of systemic choices is also an important consideration. Each of the sub-systems in Figure 2.1, such as IMPERATIVE MOOD PERSON or INDICATIVE TYPE, is represented as a more delicate option of an output feature in a more general system, such as MOOD TYPE, because the choice they open up is motivated by the selection of that output feature. Many further options may be available to the outputs of these systems, for example they may be either positive or negative. However if these options are also available to the outputs of other systems, they are simultaneous rather than more delicate selections. With the system representation it is unnecessary to classify options as subcategories if they are also available to other categories. For example, POLARITY can be represented as a simultaneous system to MOOD TYPE, indicating that the outputs of both systems are freely combinable.

There are many such choices at each rank and metafunction that are independently variable. For example, selections are made simultaneously from clause rank systems such as MOOD, TRANSITIVITY and THEME, group-rank systems such as CLASSIFICATION or DEIXIS, and word rank systems such as TENSE or ASPECT. Formal grammars attempt to manage the multiplicity of choices simply in terms of delicacy. For example, within the class of verbal inflections, metafunctions are conflated by handling mood types as subclasses of transitivity choices (because verbs play a role in realising both), or ranks are conflated by treating imperative mood as a subclass of tense choices (because verb morphology plays a role in realising both, see critique in Appendix 2 below). Where lower ranks of syntagmatic forms are the primary organising criteria for descriptions, such conflations of disparate semantic functions are likely, e.g. where the word class [verb] is construed as the entry condition for both mood and tense systems.

Simultaneity enables us to describe how multiple meanings are realised in a unified grammatical structure. For example simultaneous options from MOOD, TRANSITIVITY and THEME enable us to enact a speech role, represent a process figure and contextualise the enactment and figure in the same clause. The relative independence of systems is one indicator of linguistic difference. For example, TAGGING in Western Desert is a sub-system of declarative mood type, whereas in English it is a very significant choice across mood types (Halliday 1994a:71–78). In formal grammars negative polarity and modal assessments tend to be handled as subclasses of mood type, itself a subclass of 'tense', rather than as independent systems, using categories such as 'non-permissive' or 'prohibitive' for imperative mood+negative polarity or 'subjunctive' for imperative mood+median obligation. Because such categories are determined by overt structural markers, they can make a language look either exotic, with labels like 'non-permissive', or Latin-like with labels like 'subjunctive'. In contrast a systemic account is able to reveal the semantic organisation of the particular language in focus, in terms of delicacy and simultaneity.

2.2.4 *Probability*

2.2.4.1 *Selection probabilities in the system*

Although output features in a system network are represented as equal in status, they are not equally frequent in discourse. The systemic representation also enables us to gauge the **relative probability** of each selection. Probabilities depend partly on features of the context of speaking; jussive imperative clauses, for example, are more likely in a procedure and declarative clauses in a narrative. But they can also be estimated for the system in general, i.e. for the context of discourse in the culture as a whole. Given a choice of two potential output features, the probabilities for their selection are either equal or skewed. Probabilities can be measured using large-scale statistical analyses of text corpora (e.g. Nesbitt & Plum 1988, Halliday & James 1993), or estimated from experience of analysis and speaking. It is possible for example, to estimate that the probability of indicative mood is higher than imperative mood in Western Desert discourse, as is declarative to interrogative and positive to negative. On the other hand, the choice of *nya-* and yes-no interrogative is closer to equiprobable, since speakers demand information as much about polarity as about the identity of elements. In IMPERATIVE MOOD PERSON, the option of jussive is more probable than oblique, suggestive or optative.

Such statistical proportions are important from three perspectives. Firstly, they give us a guide for language learning and teaching, since it is the most probable options that are heard most frequently and learnt first. This applies both to children learning their mother tongue, and to second language learners. (After many years of speaking Pitjantjatjara I continue to be surprised by features that I do not remember having heard before). Secondly, they guide us in the degree to which delicacy is taken in a description. Options that are very infrequent may not be given as detailed a treatment as more significant features. Thirdly, probability gives us a measure for comparing registers within cultures and cultural types with each other.

Cultures and their diversity of registers are distinguished as much by the probabilities of features occurring in discourse, as they are by differences in overall meaning potential of systems. We have already mentioned probabilistic differences of mood selections in contexts such as procedure or narrative, or between dominant and deferential kin. Similarly, two cultures may share a similar system of meaning potentials, such as MOOD TYPE in Western Desert and English, but the overall probabilities of selections from the system may diverge

widely between them. We have pointed out an example of this with construals of temporal representation, where recursive verbal representations are an option in both the Western Desert and Europe, but the probabilities of their occurrence are high in one culture but low in the other. The probabilistic perspective is thus a crucial resource for reconfiguring typological studies in terms of trends of relative difference and commonality, rather than by dichotomising metaphors of either/or.

2.2.4.2 *Structural consequences of probabilities*

Probabilities are also built into the ways that systemic contrasts are realised structurally, as marked and unmarked variants. This is a very significant realisational strategy in the textual metafunction. For example the unmarked, i.e. most probable, variant of information distribution is one tone group per clause, with unmarked information focus on a New element at the end of the clause, and a Given element as Theme. A New element as Theme is less likely and therefore a marked textual variant, that can be employed discursively to foreground the identity of the thematic New element, and make the clause as a whole more prominent in the flow of discourse (see Fries 1981, 1995, Martin 1992 on Theme and a text's method of development).

Probability is also a feature of the system of nominal case inflection that distinguishes experiential functions realised by personal pronouns, proper names, demonstratives and common nominals. The function of nominal inflections in Western Desert is to distinguish Medium, Range and Circumstances. The most likely role of personal pronouns is Medium in both transitive and intransitive clauses, so this has evolved to be realised by the uninflected form (in traditional Latinate terms a 'nominative' case), e.g. *paluru* 's/he', whereas types of Range and Circumstance are realised by marked forms such as *palu-nya/palu-mpa/palu-la* ('accusative', 'dative' or 'locative' cases).

By contrast, the most likely role of demonstratives and common nouns is Range in transitive or Medium in intransitive clauses, so they are uninflected in these roles, e.g. *nyangatja* 'this' or *wati* 'man' ('absolutive' case), whereas transitive Medium is a less likely role for demonstratives and common nouns, so they are inflected as active, *nyanga-ngku/wati-ngku* ('ergative' case). The most likely role of proper names on the other hand is not experiential but the interpersonal Vocative, e.g. *Yami!*, so these are inflected as either Range *Yami-nya*, or Medium *Yami-lu*.

With clitic pronouns the most likely candidate for either Medium or Range in indicative clauses is a non-interactant, so this is realised by 'zero', i.e. it is implicitly presumed, whereas speaker and addressee have overt clitic forms. In imperative clauses the most likely Medium is addressee, so it is this that is implicit, and non-interlocutors are realised by the same forms as addressees in indicative clauses. Systems of nominal case inflections and pronominal person are discussed in more detail in §2.6.3.2 below.

2.2.5 *Beside the system: realisation, function structures and instantiation*

While the system network is the organising principle for the description, alongside each output feature is a **realisation statement** that specifies how the feature is realised as a structure. This is exemplified in Figure 2.2 for the system INDICATIVE TYPE. (Note that only a fragment of this system is extracted for exemplification here.)

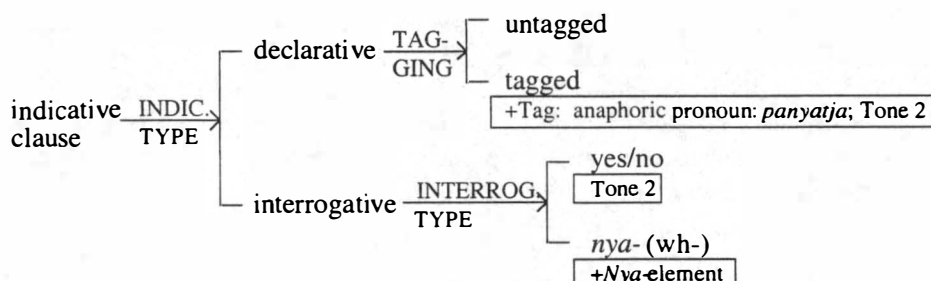


Figure 2.2: Realisation statements

Two types of realisation statement are illustrated in Figure 2.2, including:

- i) structuring statement, specifying presence of a structure, e.g. +Tag.
- ii) descent in rank statement, specifying how a function is to be realised by a lower rank feature, e.g. Tag: anaphoric pronoun: *panyatja*, i.e. that the clause rank function Tag is realised by a specific feature at a word rank: *panyatja*, and by Tone 2 (rising).

A third type of statement not shown here is a layering statement, specifying conflation of two functions from separate layers, e.g. Theme/Medium.

The output of the realisation statement is a functional element within a configuration of functional elements, known as a **function structure**. However every structure is an output of several simultaneous systems, at least at clause rank. The realisations of output features in these systems are phased onto each other in the clause structure as a whole. A clause may be analysed along five different functional dimensions, as the domain of realisation of the systems of MOOD, MODAL ASSESSMENT, TRANSITIVITY, THEME and INFORMATION. This multifunctional analysis is presented in layers in Figure 2.3.

instantiation as text					
	<i>nyangatja</i>	<i>tjinguru</i>	<i>punka-ngu</i>	<i>panyatja</i>	
systems	this one	maybe	did fall	didn't it?	output features
MOOD; PROB	To.....	Adjunctne 1	Tag; Tone 2	tagged decl.; low prob.
TRANSITIVITY	Actor		Process		material: non-effect.
THEME	Theme	Rheme			neutral prominence
INFORMATION	Given		New	late New	complex info. unit
realisation as function structures					

Figure 2.3: Structural realisations of output features in simultaneous systems

Note that for the sake of convenience, Figure 2.3 represents interpersonal prosodies and textual waves by the same particulate graphic convention as experiential structures. This graphic convention is intended only to illustrate the multi-layered meaning potential of the clause. The analysis contrasts with formalist multi-tier analyses such as lexical functional grammars (e.g. Bresnan 1982), 'cognitive linguistics' (e.g. Langacker 1987, Lakoff 1987) or

role and reference grammars (e.g. Van Valin 1993, 1997), since each layer here is functionally motivated. In the metafunctional model here there is no intention of dualising syntactic form and semantic function characteristic of formalist models of linguistic structure.

While the function structures are the realisation of output features, the actual wordings and soundings that are spoken in each instance **instantiate** the structural potential of each output feature as unfolding text. That is, each text is an instance of the structural potential of the system networks. The system networks represent the functional potential of the language, a potential that is instantiated in actual discourse, in the form of sequences of function structures that realise output features selected in each system.

2.3 Stratification

2.3.1 Overview of linguistic strata

The first theoretical perspective examined here is the stratification of language as meaning, wording and sounding, or more technically as discourse semantics, lexicogrammar and phonology. Consider again our first Text example [1:1].

[1:1]					
M					
	<i>kuta</i>	<i>ngayulu</i>	<i>nyanga-ngka</i>	<i>ngari</i>	
	brother,	I	here	lie-!	
	Big brother, may I lie here?				
K					
	<i>wiya</i>	<i>ngura</i>	<i>nyaratja</i>	<i>tjitji</i>	<i>ma-ngari</i>
	no,	place	yonder	child,	lie apart-!
	No, lie apart from me child, over there!				

From the perspective of the discourse semantic stratum, Text [1:1] is an exchange between two interactants, initiated with a vocation and request, and responded to with a negation and command. The fragment of experience that is being negotiated is a process in which one interactant is to participate, of lying in one or another location. These two dimensions of meaning, the interpersonal and ideational, are realised by complementary patterns of wording and sound. From the perspective of the lexicogrammatical stratum, it is groups of nominal, pronominal, verbal and adverbial words that realise the configuration of person, lying and location; and modal adjuncts and verb morphology that realise the acts of request and command. From the perspective of the phonological stratum it is the phonetic structure of syllables that realise these wordings, but more significantly for a functional approach, it is the tone contours that complement wordings to realise meanings of request, command, vocation and negation.

These three stratal perspectives on Text [1:1] can be diagrammed as co-tangential spheres, as in Figure 2.4.

kuta, ngayulu nyanga-ngka ngari?

wiya, ngura nyaratja tjitji ma-ngari!

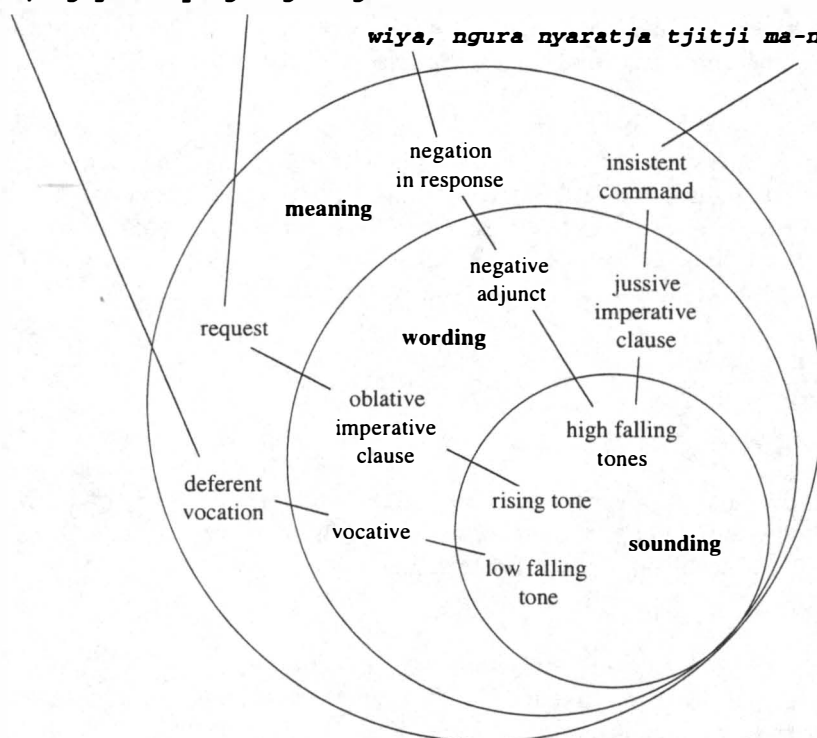


Figure 2.4: Stratification of language, exemplified by Text [1:1]

So language is a stratified resource for making meaning, and the relationship between the strata is one of **realisation**: meaning is realised (expressed, coded, symbolised) as wording, and meaning as wording is realised as sounding. Realisation is construed in the model as a simultaneous bi-directional relationship between orders of abstraction, not as a temporally ordered one of cause and effect. The semantic stratum lies at the interface between language and its social context of situation and culture, while phonology is at the interface between language and the physiological context of the human articulatory and auditory systems. Semantics realises social contexts by semanticising their features as meanings; grammar realises meanings by grammaticising them as wordings; phonology realises meanings as wordings by articulating them as sounds. The semantic stratum realises contexts as text, and is thus more accurately **discourse semantics** (Martin 1992). This concept of meaning is more elaborate than the formal philosophical notion of 'propositions' or reductive or circular definitions of words or morphemes characteristic of formalist linguistics. The grammatical stratum incorporates lexis (vocabulary) as the more delicate options in a unified system of **lexicogrammar**, that includes the traditional formal categories of morphology as well as syntax. However grammar entails more than the formalist notion of syntax; it is not simply a set of arbitrary syntactic rules for binding words into sentences, but consists of grammatical categories which realise more general meanings, and lexical categories which realise more specific ones (Hasan 1987). Resources in the stratum of **phonology** include phonemic articulation, the primary interest of formalist accounts, but more significantly from a metafunctional perspective, phonology includes the textual and interpersonal meaning-making resources of rhythm and intonation, including the distribution of tone

groups (TONALITY), the location of tonic focus (TONICITY) and their pitch contours (TONE) (Halliday 1967a).

2.3.2 *Redundancy and decoupling between strata*

Halliday (1975, 1994a:xvii) suggests that in non-human sign systems, and in the protolanguage of human infants, there is a one-to-one relation between a meaning and its expression as sounding or gesture. In adult human language the content plane is stratified into semantic and grammatical strata, that enables the signifying relation between meaning and expression to be decoupled, and for independent strands of meaning to be realised simultaneously in the same grammatical configuration. For example, there seems to be an iconic-signifying relation within Western Desert between a mid rise-high fall tone and the general meaning of proposal. However the lexicogrammatical category of imperative mood has evolved as a grammaticisation of the semantic category of proposal on the one hand, and the phonological category of rise-fall tone on the other. Because the wording of a clause can realise a process configuration and message structure simultaneously with the proposal, this enables the type of proposed activity to be specified, and elements of both the configuration and proposal to be contextualised, thematised and focused with the major pitch movement. Because the work of realising the proposal is taken over by the grammar of imperative mood, the phonology can be re-employed to specify the type of proposal more delicately.

Another way of putting this is that sounding redounds with wording and both redound with meaning; features in each stratum are redundant with respect to each other (Lemke 1984). This 'meta-redundancy' between strata enables the potential for variation in meaning to be considerably expanded. In principle a grammatical or phonological category can be redeployed from the semantic category it evolved to grammaticise, to realise an alternative semantic category. For example, the first person imperative wording of a clause, together with a rise-fall tone, naturally realises a proposal in which speaker is modally responsible, 'I may lie here'. This congruent relation between a speech function, and the grammatical mood and intonation contour which realise it, has evolved in the language as an unmarked variant. But in an alternative variant, spoken on a rising tone, the redundant relation between wording and meaning is decoupled to shift the modal responsibility to the addressee, realising a request for permission 'may I lie here?', as in example [1:1].

2.3.3 *Stratification and phylogenesis*

The phylogenetic resource of decoupling meaning and wording to extend the meaning potential is a feature of all languages, but is particularly prominent where a culture has undergone rapid large-scale evolutionary changes, such as Europe over the past few centuries. As a result grammatical metaphor is a major feature of written registers in languages such as English, while it remains a minor motif to date in the Western Desert. As noted above in Chapter 1 fn. 18, Halliday (1993) suggests a series of major evolutionary events in the meaning potential of languages in the Eurasian culture bloc, associated with major socio-economic changes, including:

- i) 'settlement' and concomitant social stratification,

- ii) Iron Age technological development and imperial expansion, and
- iii) modern bureaucratisation and industrialisation.

In Chapter 3, I will also propose an earlier phylogenetic stage (following Halliday 1994a:312, and Whallon 1992), associated with the 'Upper Palaeolithic Revolution'. In each of these events, the meaning potential expands by a cumulative decoupling of semantics from lexicogrammar and metaphorisation, although in the later events, access to the expanded meaning potential is not evenly distributed across social strata. We have exemplified two such regions of semantic variation, in the 'objectification' of spatio-temporal concepts associated with settlement and social stratification, and in the lexicalisation of interpersonal meanings in languages such as English that are realised primarily through tone in spoken Western Desert. Halliday and Martin (1993) extensively illustrate the phylogenetic consequences of the Iron Age and modern events, in the proliferation of technicality and abstraction employing the grammatical resources of ideational metaphor. While interpersonal metaphor is a feature of adult discourse in the Western Desert, ideational metaphor is a very minor feature. Although the same structural potential exists for expanding the system through transcategorisation of word classes (§2.6.4.3 below), it has not been taken up in the culture. There is no judgement of cultural value in these observations, no sense in which later or bigger must mean better, but they are pedagogically crucial for English literacy learning, since it is in these realms of metaphorisation that the semantic code of written English differs most from that of spoken Australian languages.

The semantic potential of a language is much larger and more diverse than the range of grammatical resources required to realise it, as its grammatical potential is much larger than its range of phonological resources. This quantitative difference between linguistic strata is captured in the model of stratification illustrated in Figure 2.4, where the tangential circle representing wording is larger than that of sounding, and that of meaning is larger again. While a description of the entire semantic system of a language is beyond the scope of a survey such as this, the natural relation between semantic features and the systems of grammatical functions that realise them means that a systemic functional description of the grammar is simultaneously an outline of the organisation of its socio-semantic code.

2.4 Metafunctional diversity: interpersonal, ideational and textual modes of meaning

Within the strata of lexicogrammar and discourse, three generalised modes of meaning are realised simultaneously: interpersonal, ideational (including experiential and logical sub-types) and textual. In other words, from the perspective of social context, language enables speakers to simultaneously enact social relations, construe experience (as figures and sequences) and to phase enactments and construals together as pulses of information in text. This is possible because these three types of meaning are mapped onto each other through four distinct but complementary types of linguistic structure: prosodic, orbital, serial and periodic, set out in Table 2.2 below.

Table 2.2: Metafunctions and types of structure
(after Martin 1996a)

metafunction	type of structure
interpersonal	prosodic
ideational:	
experiential	orbital
logical	serial
textual	periodic

We have already illustrated these different linguistic functions in Chapter 1, in the cultural contexts of social organisation, material production and semiotic reproduction. We have also illustrated, in Figure 2.1 above, how both grammatical and phonological interpersonal resources contribute to the realisation of interpersonal meanings such as vocation, negation and speech function. In the following sections we will model the types of structures that tend to be deployed for the realisation of features in each metafunction.

2.4.1 Interpersonal metafunction

We can model the interpersonal metafunction from a discourse semantic perspective as resources for social exchange between interactants, and from a structural perspective as prosodies of sounding and wording. Semantically the interpersonal metafunction enacts intersubjectivity as ongoing exchange between ‘you and I’, represented schematically in Figure 2.5.

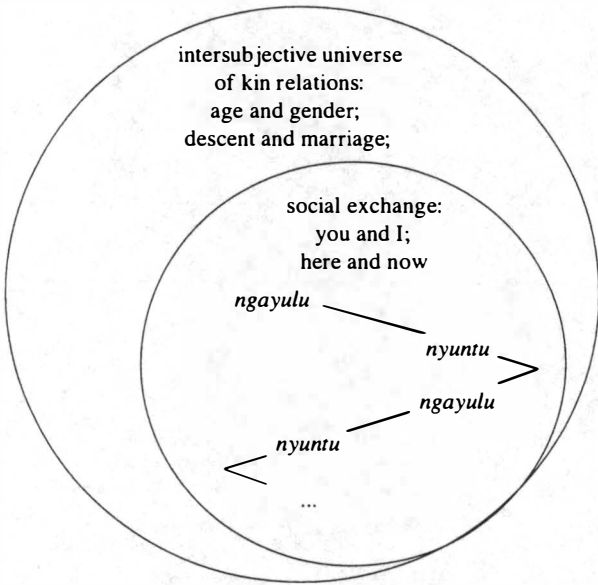


Figure 2.5: Social exchange and cultural context

Linguistic enactments of such exchanges tend to be realised as prosodies of sounding and wording. The phonological prosody is carried on a tonicity wave that rises and falls in pitch to realise delicate shades of interpersonal meaning. One such exchange is the following example [2:1], in which A asks whether a third party has seen an object under discussion, and B affirms that they have seen it and brought it back.

[2:1]

A *uti* *-ya* *nyanga-ngi*
 clearly they₃ were seeing
 Could they see it clearly?

B *uwa nyaku-la ura-ra kati-ngu*
 yes seeing collecting did bring
 Yes, having seen it, they collected it and brought it back.

What is being negotiated in this exchange is polarity. Both clauses are indicative, but their speech function is distinguished by changes in pitch, or tone contours. An inquiry of polarity is realised by a rising tone, while affirmation is realised by a falling tone. This prosody of rising and falling tone is constructed interactively between speakers and is illustrated in the following graphs of the frequency of the tones on which these two clauses were spoken (Figure 2.6). The graphs are produced by the speech analysis software CECIL. Syllables are positioned approximately over the location on the tone contour on which they were articulated.

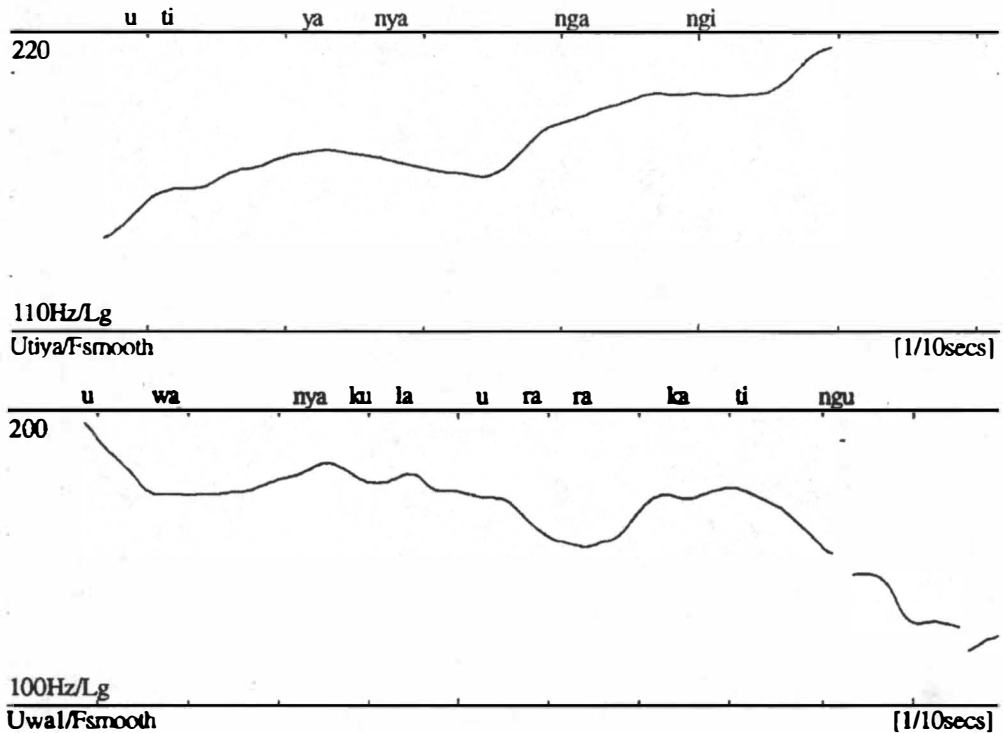


Figure 2.6: Tone contour graph of exchange pair

Onto the prosodic structures of intonation contours in the exchange [2:1] are mapped the interpersonal grammatical features of modal adjunct *uti* 'clearly', mood person *ya* 'they3', affirmative continuative *uwa* 'yes' and indicative verb morphology. These interpersonal items naturally occur at the boundaries of prosodic structures, at the beginning or end of tone groups and clauses, with continuatives and adjuncts tending to cluster at the beginning and mood indication at the end, as verb suffixes of imperative mood or tense. The mapping of lexicogrammatical onto phonological prosodies is illustrated in Figure 2.7.

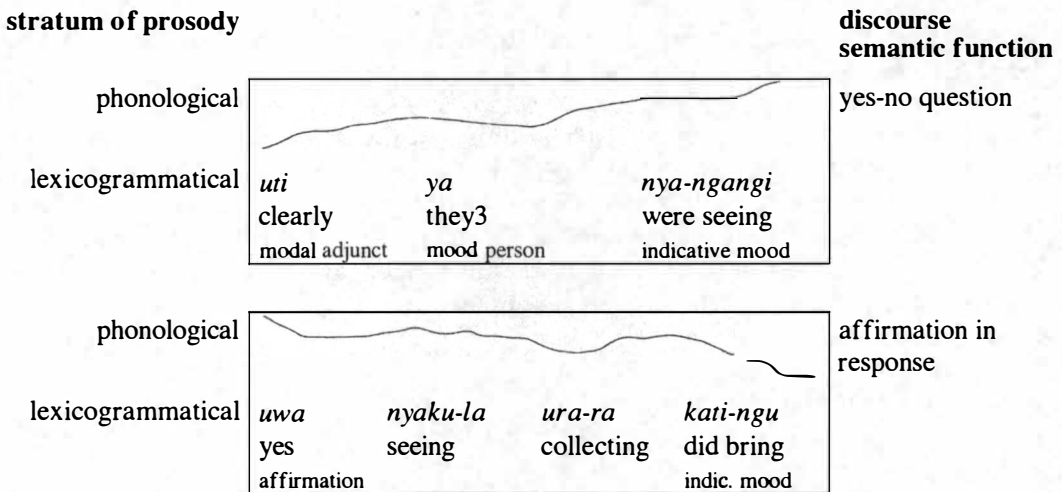


Figure 2.7: Phonology and lexicogrammar in interpersonal prosodies

The second important property of interpersonal meanings is that they can be 'amplified' or 'diminished'—toned up or down, either by intonation or lexicogrammatical items. For example, the older brother in Text [1:1] amplifies negation and obligation by means of high falling tones, together with 'growling' voice quality. Lexicogrammatical resources for amplification (+/-) are available at clause and group rank, in several functional environments. These environments are exemplified in Table 2.3.

Table 2.3: Resources for amplification at clause and group rank

value	clause rank		group rank
	Mood	Modal Adjuncts	Epithets
high	<i>ma-pitja!</i> 'go'	<i>a-nu mantu</i> 'went certainly'	<i>wala winki alatjitu</i> 'quite altogether quickly'
median	<i>uti-n ma-pitja-ma!</i> 'clearly you should go'	<i>a-nu manti</i> 'went probably'	<i>wala winki</i> 'altogether quickly'
low	<i>tjinguru-n ma-pitja-ma!</i> 'maybe you should go'	<i>a-nu tjinguru</i> 'went maybe'	<i>wala</i> 'quickly'

The potential for amplification is a feature of prosodic structures (Martin 1996b), and again the older brother's response in Text [1:1] is a good example. The interpersonal meanings realising domination are accumulated as the prosody unfolds, beginning with the negation *wiya*, followed by stress on *nyara-tja*, followed by the dominating Vocative *tjitji*, followed by stress on *ma-ngari*. This prosodic amplification is illustrated in Figure 2.8.



Figure 2.8: Prosodic amplification of interpersonal meanings.

While wording realises interpersonal semantic contrasts, intonation is crucial to the interpersonal metafunction. For example, the speech roles exchanged in Text [1:1], of questioner and commander, could be realised without the imperative verb forms *ngari* and *ma-ngari*, simply by means of rising versus high falling tone respectively. It is partly for this reason that interpersonal meanings are marginalised in mainstream Australianist descriptions, since their focus on overt lexical and morphological features in constituency structures privileges experiential wordings, and their descriptions of phonology tend to be limited to rules of phonemic segmentation, which have little semantic significance. Martin makes the same point for descriptions of Tagalog (1990) and linguistics in general (1996a). Formalist descriptions may include such interpersonal lexical items as calls and greetings, or overt mood indicators such as imperative verb morphology or *wh*-items, but exclude much of the rich interpersonal meanings realised by the interaction of tone contours with covert grammatical choices in the context of dialogic exchanges.

2.4.2 Ideational metafunction

2.4.2.1 Experiential figures

From the ideational perspective, each of the clauses in Text [1:1] construes experience as a figure, of [Process] *lying*, [Medium] *I/child* and [Circumstance of location] *here/yonder place*. This is an 'orbital' type of structure in that Process and Medium constitute the nucleus of the figure, with Circumstances as optional and more peripheral (Martin 1992, 1996b), illustrated in Figure 2.9. The yin-yang symbol is used to represent the complementarity of nuclear Medium with unfolding Process.

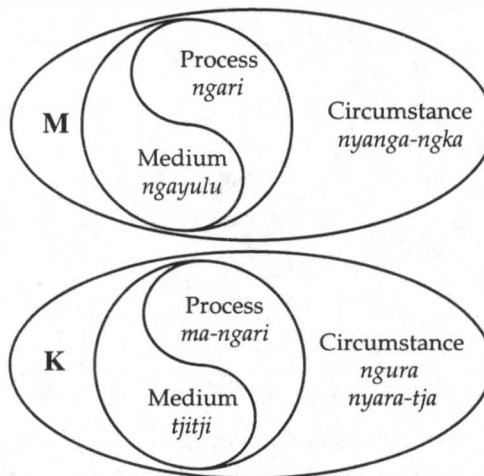


Figure 2.9: Orbital structures and experiential meanings

The Medium in Western Desert is the generalised nuclear participant in a clause; it actualises the process of acting, sensing, saying, or is ascribed an attribute or assigned an identity in a relation. The significance of this generalised perspective on the nuclear participant function is apparent across various regions of the grammar. Medium in Western Desert is realised by the unmarked 'nominative' form of personal pronouns, and is included in the Theme of each clause. Furthermore its identity as addressee, speaker, both or neither, distinguish types of imperative mood person (see §4.3 below). In other words the general participant function Medium is motivated by the grammar itself, and not merely by descriptive conventions.

These criteria for defining Medium differ from those described for English by Halliday, except for its role as nuclear participant "without which there would be no process at all" (Halliday 1994a:163). In English the generalised model of transitivity is ergative, and the Medium is "the one through which the process is actualised" (Halliday 1994a:163), so that Medium may be conflated with either Actor or Goal depending on the clause's effectivity. In Western Desert the model is predominantly transitive, and the Medium is the active participant whether the clause is effective or not (see §5.1.1 below for more detailed discussion). From this perspective it can be seen that Medium is not simply a function of the ergative model of transitivity, as in English, but is rather a feature of the generalised nuclear perspective on transitivity, whether this perspective is ergative or transitive in a particular language. Medium is the preferred term for the nuclear participant in Western Desert clauses, because this includes not only the active participants in acting (Medium/Actor), sensing (Medium/Senser) and saying (Medium/Sayer), but also the participant in a relation that is ascribed an attribute (Medium/Carrier) or assigned an identity (Medium/Value). I have already discussed why the term Medium is preferable to the traditional label 'subject' in formalist accounts (Chapter 1, fn. 13 above).

Of course there may be more than one participant and circumstance in a clause, and further degrees of nuclearity and peripherality in its orbital structure. I have used the term Range to generalise other participant functions in Western Desert, which represent the entity that the process or relation is extended to. This is also an appropriate term to use in the Western Desert transitive model, i.e. the Range is the entity that is acted on (Range/Goal), perceived (Range/Phenomenon) or said (Range/Verbiage), done for (Range/Client), given to (Range/Recipient) or said to (Range/Receiver), or the attribute (Range/Attribute) or identity (Range/Token) of the Medium. These all represent specific types of extension of the process, which the term Range generalises more inclusively than the traditional label 'object'.

Some Ranges are obligatory in certain clauses, such as Goal in effective actions, Phenomenon in verbal processes, and of course Attribute or Token in relations. Other types of Range are optional and thus more peripheral 'outer participants' from the nuclear perspective, including Client in actions or Receiver in verbal processes. A third type of generalised participant occurring in just three peripheral process types in Western Desert is that of Agent. In mental reactions this is the participant that induces a Senser to react (Agent/Inducer). In relations it is the participant that ascribes an Attribute such as a quality (Agent/Attributor) or assigns a Token such as a name (Agent/Assigner). Unlike the English model, agency is not explicitly a feature of other process types. Finally, Circumstances are the most peripheral elements of a clause; unlike participant functions they are not specific to any one process type, and are always optional.

The orbital nature of experiential structures is partially recognised in formal accounts, such as Dixon's (1980) notions of 'core NPs', 'local peripheral', and 'peripheral syntactic' cases in Australian languages (see review in Appendix 2 below), and Van Valin's (1993:5)

notions of “nucleus, which contains the predicate” (i.e. the Process), “core, which contains the nucleus and the arguments of the predicate” (i.e. Medium and obligatory Ranges) and “periphery, which is an adjunct to the core and subsumes non-arguments of the predicate, e.g. setting locative and temporal phrases” (i.e. optional Ranges and Circumstances), influenced in part by descriptive work on Papuan and other languages. However as Halliday (1994a:163) points out, the Medium is also a part of the nucleus in any clause, and indeed in many languages such as Western Desert, relations are often not construed as processes, although they still include a Medium. The clause nucleus is more accurately Medium+Process in process clauses or Medium+Range in non-verbal relational clauses. A prototypical example of a multi-participant clause in Western Desert is a dispositive material process, involving a ‘giver’ as Medium, and more peripheral ‘gift’ as obligatory (inner) Range 1, and ‘recipient’ as optional (outer) Range 2, as in example [2:2] (see Halliday 1994a and Martin 1992 for discussion of inner and outer participants).

[2:2]	<i>kami-ngku</i>	<i>-ni</i>	<i>mungawinki</i>	<i>mai</i>	<i>u-ngu</i>	<i>ngura-ngka</i>
	grandfather	me	morning	food	did give	at home
	Medium	Range	Time	Range	Process	Place
	Grandma gave me food this morning at home.					

The process figure in example [2:2] is represented orbitally in Figure 2.10. The goods *mai* are labelled Range 1, because this is the obligatory second participant of this dispositive process, whereas the recipient *ni* is labelled Range 2, since this role is potentially optional. Circumstances of Time and Place on the other hand are probably equally optional in such clauses.

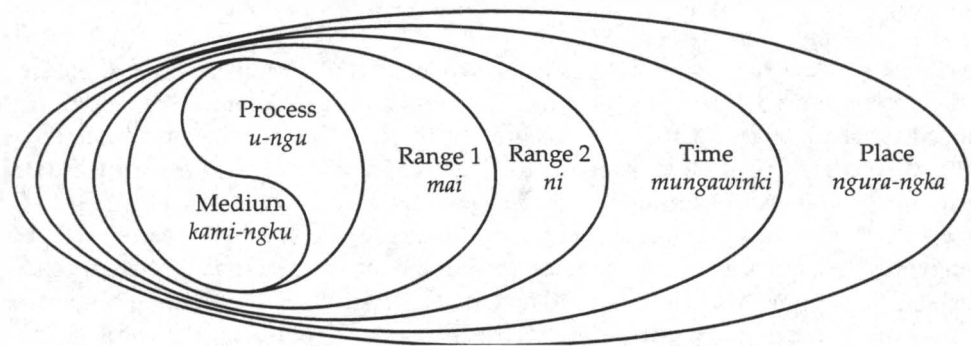


Figure 2.10: Orbital structure with multiple participants and circumstances

Orbital relationships are realised purely by word groups and their inflections, which means that experiential elements need not be contiguous or in any particular order in a structure. This enables them to be inserted at any point in prosodic and periodic structures according to the demands of interpersonal and textual meanings. *Ngayulu ngari nyangangka*, *nyangangka ngayulu ngari*, *ngari ngayulu nyangangka*, etc. all represent the same experiential figure, although they are systematic textual variants, with different Themes and information foci.

2.4.2.2 Logical series

Serial structures, on the other hand, are inherently contiguous, construing experience as complexes of figures or elements that are logically related. For example the hypotactic clause complex in examples [1:2+3] from Chapter 1, is re-presented graphically in Figure 2.11.

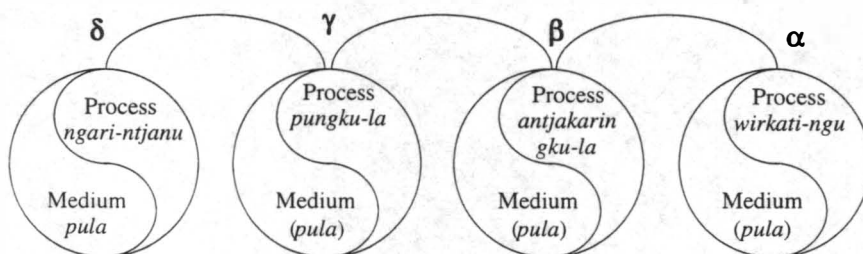


Figure 2.11: Serial structure and logical meaning

Complexing is available at each grammatical rank of clause, group, word and morpheme. Text [1:4] in Chapter 1 included examples of a word rank series—a verb complex expressing duration. Another common feature is the non-finite + finite verb complex, realising complex processes that often denote single lexical items. Examples include *paluru pata-ra nyina-nyi* 'he waiting is sitting', *nganana ngalku-la wiya-ri-ngu* 'we3 eating did finish (we're finished eating)', *tjana arka-ra tjulya-ningi* 'they3 trying were snatching (they were trying to snatch it)'.

The role of phonology in orbital structures includes the forms of phoneme segments that realise the morphology of words and their functional inflections. With the exception of syndromes such as phonaesthesia, this is a largely conventional relationship between wording and sounding, so that the same word or inflection in different languages or dialects may have entirely different phonetic realisations. The formalist focus on phonemic segmentation contributes to an assumption underlying formalist accounts of arbitrary relations between sounding, wording and meaning that inhibits exploration of both meaning and intonation. Nevertheless there is a motivated relationship between phonemic sounding and experiential wording in phonaesthesia, which may be more extensive than is generally recognised. There is also a relationship between rhythm and word boundaries in orbital structures. On the other hand, intonation plays an explicit semantic role in certain serial structures. For example, the clause complex relation of elaboration: specifying is realised by tone concord between primary and elaborating clauses, while the relation of extension: alternation is realised by tone contrast.

2.4.3 Textual metafunction

The textual metafunction is responsible for contextualising interpersonal and ideational meanings in the context of situation and the context of discourse. We can represent this semantically and structurally. Semantically, Matthiessen (1991b) characterises the role of the textual metafunction as follows:

The ideational metafunction construes 'natural' reality as meaning; and the interpersonal metafunction enacts 'intersubjective' reality as meaning. Reality as meaning is second order reality, reality turned into meaning; it is semiotic reality...

This order of reality internal to language itself, semiotic reality, is the condition for a third metafunction, a purely semiotic one - the textual metafunction, which presents semiotic reality as text in context. At the same time it also uses this order of reality as its own mode of expression so it joins the other metafunctions as a shaper of it.

This presentation of semiotic reality as text in context is diagrammed in Figure 2.12.

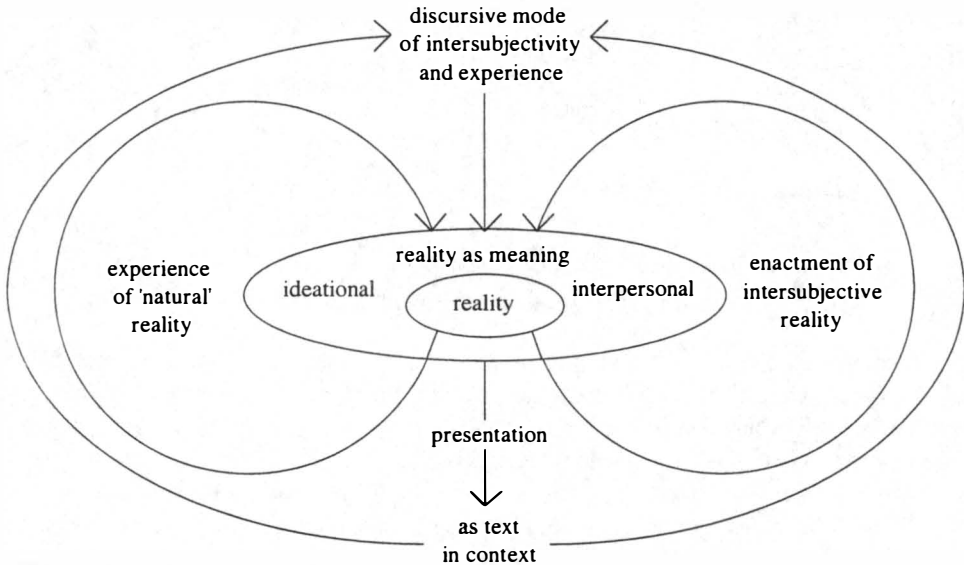


Figure 2.12: Presentation of discursive, intersubjective, and 'natural' reality as text in context (after Matthiessen 1992)

Structurally, interpersonal and ideational meanings are mapped into periodic structures by the textual metafunction, as pulses of informational prominence. This is possible, on one hand because of the independence of orbital structures from contiguity and ordering, and on the other because prosodies are complementary dimensions of periodic structures. So three kinds of structural resources available for phasing together interpersonal and ideational meanings are: i) ordering of elements, ii) rhythm and iii) intonation. Ordering is deployed to thematise elements at the start of the clause, which may then be more or less prominent Themes. This is complemented by the deployment of tonic focus to indicate New elements, which also tend to be last in the sequence, although this ordering is open to considerable variation. This complementarity of diminishing and culminative periodic structuring is illustrated schematically for the exchange [1:1] in Figure 2.13.

The first speaker begins by grounding his message in the relationship with his old brother, with a thematic Vocative *kuta*, with his own identity as experiential Theme *ngayulu*, and his request is culminative New *nyanga-ngka ngari*? The second speaker begins by grounding his message in the interaction, with negation of the request, and a contrasting location as both experiential Theme and New *ngura nyaratja*, followed by the commanded action as a second New element *ma-ngari*. The interaction is thus constructed jointly as continuous overlapping waves of thematicity and tonicity, that carry both the wordings and the tone contours on which they are spoken.

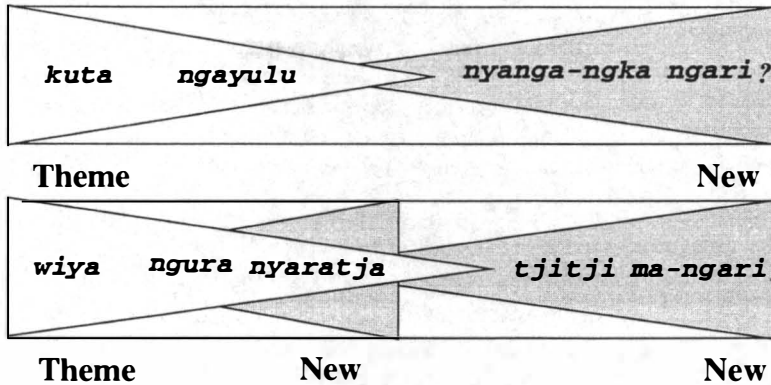


Figure 2.13: Complementarity of periodic structures

2.5 Phonological ranks

2.5.1 Overview of the phonological rank scale

We can define a rank scale for the phonological stratum, of phonemes as constituents of syllables, which are constituents of rhythmic feet, which are constituents of tone groups. This rank scale is illustrated in Figure 2.14. Here the constituents of each rank are presented as segments demarcated by slashes (with double slashes demarcating tone groups), and each segment is assigned a functional label beneath it.

tone	// wiya	ngura	nyaratja	// tjitji	ma-ngari //
group	no,	place	yonder	child,	lie apart-!
	Pretonic		Tonic	Pretonic	Tonic
foot	wi / ya	ngu / ra	nya / ra / tja	tji / tji	ma / nga / ri
	Ictus/Remiss	Ictus/Remiss	Ictus/Rem/enclitic	Ictus/Remiss	Ictus/Rem/enclitic
syll- able	w / i / y / a /	ng / u / r / a /	ny / a / r / a / t j / a /	t j / i / t j / i /	m / a / ng / a / r / i
phon- eme	On/Rh/On/Rh	On/Rh/On/Rh	On/Rh/On/Rh/On/Rh	On/Rh/On/Rh	On/Rh/On/Rh/On/Rh
	w / i / y / a / ng / u / r / a / ny / a / r / a / t j / a / t j / i / t j / i / m / a / ng / a / r / i				

Figure 2.14: Phonological rank scale

However, the structure of each phonological rank is not only particulate (i.e. composed of constituents) but also periodic: the syllable rank can be described as a **sonority** wave consisting of phonemes that are more or less sonorous; the foot rank is a **stress** wave consisting of syllables that are more or less stressed; and the tone group rank is a **tonicity** wave consisting of feet that are more or less the focus of pitch movements. Clérigh (1998) describes the complementarity of periodic structures at each phonological rank as follows:

The ensemble involves constructive interference of one wave on another. Stress peaks coincide with some sonority peaks, thereby enhancing them; and tonicity peaks

coincide with some stress peaks, thereby enhancing them. That is, stress arises from *two* waves, stress and sonority, being in *phase*, while tonicity involves the peaks of *three* waves, tonicity, stress and sonority, being in phase... On the physical model, the sonority wave can be thought of as a carrier wave, and the stress and tonicity waves as modulating waves using amplitude and frequency modulation. Speech is an amplitude and frequency-modulated carrier (sonority) wave.

The particle-wave complementarity in the structures of speech was first pointed out by Pike (e.g. 1982), borrowing the model from quantum physics. It was applied by Halliday (1978) to the complementarity of constituent and periodic structures in the lexicogrammar, and further correlated with structural realisations of metafunctions in Matthiessen (1988). Features at each of these phonological ranks are related to features of lexicogrammar in various ways. The relation of features of the sonority wave to the lexicogrammar is one of articulation—of the forms of words and their grammatical inflections articulated as syllables. The relation of features of the stress wave to lexicogrammar is one of timing. The articulation of lexicogrammatical items is timed rhythmically so that items, particularly words, are audibly demarcated from each other. The relation of features of the tonicity wave to lexicogrammar is one of phasing. The tonicity wave phases together tone contours, stress and the articulation of lexicogrammatical items, to realise textual and interpersonal grammatical functions.

Some of these patterns of phasing, or ‘constructive interference’, are illustrated in the following amplitude graph of Text [1:1], in Figure 2.15. To begin with, the structuring of the tonicity wave is evident in the gaps of zero amplitude between tone groups, following the word *kuta*, then between the two moves following *ngari* and thirdly following *nyara-ngka*.

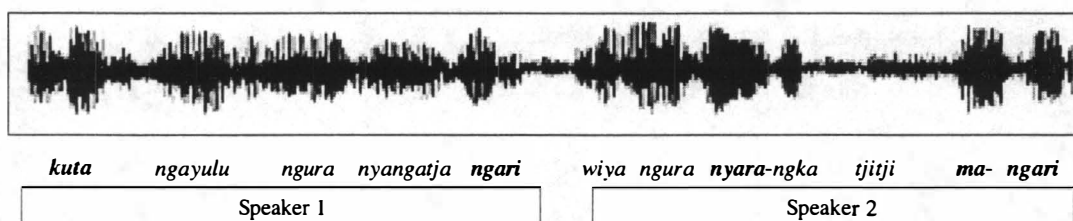


Figure 2.15: Amplitude graph of Text [1:1]

Secondly, the structuring of the stress wave is evident from the distinct regions of higher amplitude indicating rhythmic feet, that are bounded by points of low amplitude. The close correspondence of each foot with a single word is also evident. These stress wave patterns are made clearer in the following enlargement, Figure 2.16. Phasing of stress and tonicity waves is evident in those feet with highest amplitude, shown in the graph as the densest waves, on *kuta*, *ngari*, *nyara-ngka* and *ma-ngari*. These are the Tonic feet that correlate with regions of tonic focus, i.e. major pitch movements, whose grammatical function is to realise elements of New information.

Finally, the structuring of the sonority wave is evident from regions of higher amplitude within each foot, corresponding to the sonorous peaks of individual syllables, particularly clear for words such as *kuta*, *ngari*, *nyara-ngka* and *ma-ngari*. Phasing of sonority and stress waves is evident from the diminishing amplitude between Ictus and Remiss syllables, particularly in the words *ngari*, *nyara-ngka* and *ma-ngari*.

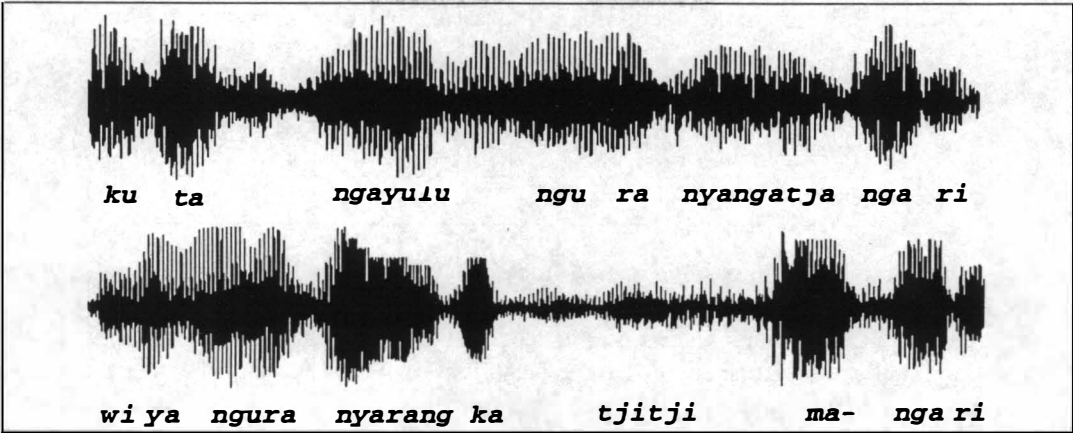


Figure 2.16: Enlarged amplitude graph of Text [1:1]

2.5.2 Sonority wave

The following discussion of articulatory potential in Western Desert is intended as a brief introduction, as a basis for the following discussion of rhythm and intonation, and to make clear the correlation of articulation with orthographic conventions in the transcriptions in the survey. Terminology is based on Cléirigh's (1998) systemic modelling of articulation, following Abercrombie (1967) and Clark and Yallop (1990), but is modified here to capture specific features of Western Desert.

At the rank of phoneme, Western Desert has options in four general systems of articulation, ALIGNMENT: labial/ alveolar/ postalveolar/ laminodental/ velar; CLOSURE: stop/ continuant: nasal/ lateral; POSTURE: front-spread/ back-round/ central-neutral; FUNCTION: as Onset/ as Rhyme. Terms in ALIGNMENT refer to positions at which the oral cavity is closed by the lips or tongue in order to articulate obstruent, nasal and lateral consonants. Terms in CLOSURE refer to whether the airflow is obstructed [stop] or continuant, and the passage of the continuant airflow [nasal] or [lateral]. (Note that there is no fricative option, and no voiced/voiceless contrast in Western Desert.) POSTURE refers to the positions of the tongue and lips to articulate vowels and approximant consonants (glides). The terms [front], [back] and [central] refer to tongue posture, while [spread], [round] and [neutral] refer to lip posture. FUNCTION refers to the structural function which the latter features may fulfil in a syllable. Approximant consonants may function as the Onset, or Offset of the Rhyme, but vowels only as the Peak of the Rhyme phase of a syllable. Realisations of these articulatory options are set out in Table 2.4 and 2.5.

Table 2.4: Obstruent and continuant consonant potential in Western Desert

CLOSURE	ALIGNMENT			
	labial	alveolar	postalveolar	velar
stop	<i>p</i>	<i>t</i>	<i>tj</i>	<i>k</i>
nasal	<i>m</i>	<i>n</i>	<i>ny</i>	<i>ng</i>
lateral		<i>l</i>	<i>ly</i>	

Table 2.5: Approximant consonant and vocalic potential in Western Desert

FUNCTION	POSTURE		
	front-spread	back-round	central-neutral
as Onset/Offset	y	w	r
as Peak	i	u	a

In addition to these options, the glide /r/ may also be rolled, indicated in the transcriptions as /rr/, e.g. /pu/tu/rru/ ‘man’s headband’, and the alveolar consonants also have ‘retroflex’ variants, with the tongue placed slightly behind the alveolum. This variation is not orthographically distinguished in the transcriptions that follow, since it has no role in distinguishing lexicogrammatical items, except arguably in a very few words that are phonetically similar.² Postalveolar consonants are also known as ‘palatal’ or ‘laminodental’. These are the outlines of the general articulatory potential of the language. Their structural instantiation is briefly described and exemplified as follows.

The constituents of the sonority wave are phonemes, with consonants functioning as the Onset of each wave, and vowels as its peak or Rhyme. In order to represent the complementarity of particle and wave in the sonority wave-train, I have used graphic conventions developed by Cléirigh (1998), which he explains as follows:

The periodicity model of structure presents articulation as a wave-train of alternating Onset and Rhyme phases. This is to conceive of articulation as the propagation of a disturbance through an articulatory field. This propagating wave-front can be depicted dynamically as particle tracing out an undulating path through the field, with each new phase in a new frame (Figure 2.17 below).

² There is disagreement amongst linguistics schools about appropriate orthographies for Western Desert phonemes. For example there has long been a debate over whether to use /b d dj g/ or /p t t j k/, since there seems to be little differentiation between voiced and voiceless consonants in Western Desert and other Australian languages. As a result different orthographies are used in different regions, depending on which linguistics department described the language first. This may be no small matter since these orthographies determine what is used in local school vernacular literacy programs promoted by linguists. For example, in the central Western Desert dialects, the decision to write the frequent laminodental stop as a consonant cluster /tj/, instead of simply /j/ as it is written elsewhere, significantly increases writing labour (e.g. words like *pitjantjatjara*). More recently it was decided that postalveolar (‘retroflex’) forms of consonants in Pitjantjatjara should always be written with an underline, e.g. *kun̩ta*. This is despite the fact that even the architects of this formalism admit that “only a handful of words are distinguished from one another solely by the presence or absence of a single underline” (Goddard in IAD 1992: vii). In practice, the semantic contrasts between these words are always distinct in the context of discourse, while the contrast with alveolar equivalents is very often inaudible in rapid speech (although it may be articulated in elicitation). Underlining individual letters on such insignificant criteria requires considerable labour, although it is often insisted upon in school vernacular literacy programs, reflecting the emphasis of form over function that derives from formalist approaches to language. To complicate this further, the smooth form of /r/ is written in this convention with an underline, while the rolled form is written simply as /r/, in contrast to other regions where it is written as /rr/. For these reasons I have not used consonantal underlines here. Lengthened vowels are sometimes written with a double letter /aa ii uu/, and sometimes with a colon /a: i: u:/, I have used double letters only where it is significant, for example with the element question *nyaa* ‘what?’, which is one of a very few one-syllable words in Western Desert, and may occupy its own foot by virtue of its extended Rhyme.

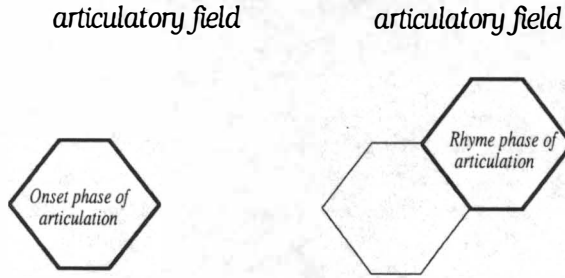


Figure 2.17: Dynamic representation of the textual structure of the syllable (Cléirigh 1998)

Syllable structure in Western Desert follows a very regular pattern of Onset realised by a single consonant, followed by Rhyme realised by a vowel (plus optional approximant or nasal post-modifier). Almost all word stems in the language consist of two or three syllables, such as /wi/ya/ 'no' or /kang/ku/ru/ 'older sister'. Any of the consonants tabulated above may function as initial Onset in a word, with the exception of the postalveolar variants and the rolled /rr/ that only function as medial Onsets. Pitjantjatjara differs from other dialects in generally dropping /y/ where it occurs as a word-initial Onset, e.g. /yanangu/ => /anangu/ 'person'. Figure 2.18 illustrates the dynamic movement of the sonority wave /w/i/y/a/, from the release of energy at Onset, up to a higher energy state of Rhyme, moving down again to a new Onset, and so on.

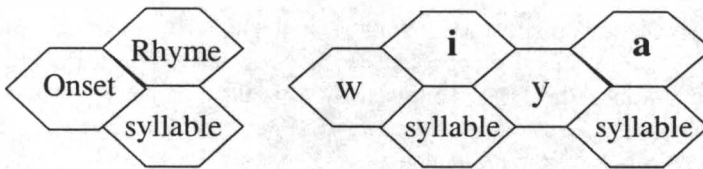


Figure 2.18: Textual structure of syllables in Western Desert

In some Rhymes where the following Onset is a stop, the downwards movement happens by degree, with an approximant or continuant consonant functioning as an Offset that post-modifies the vowel functioning as Peak. (Stops may not function as Offset.) This variation is illustrated with the three-syllable word /kang/ku/ru/ in Figure 2.19, in which the first Rhyme consists of a phoneme complex, Peak: /a/ ^ Offset: /ng/.

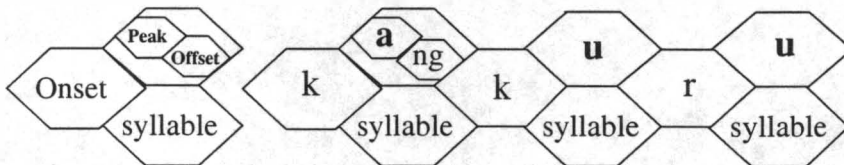


Figure 2.19: Complex Rhyme in a multisyllabic word

Peaks may also be post-modified to form long vowels /aa ii uu/, e.g. /nyaa/ 'what?', /nyii/ 'take this!', /yuu/ 'windbreak', and two possible diphthongs /ai au/, e.g. /mai/ 'vegetable food', /pau/ni/ 'cooking'. Offsets feature significantly in environments preceding a suffix whose Onset is a stop. This is exemplified with the following contrasts: [suffix Onset:

continuant] /pi/**tja**/-la/ 'coming', [suffix Onset: stop] /pi/**tjan**/-tjaku/ 'to come'; [suffix Onset: continuant] /ku/**li**/-ni/ 'is thinking', [suffix Onset: stop] /ku/**lil**/-ku/ 'will think'. While this has no semantic function (see discussion in Appendix 2 of Glass and Hackett's semantic misinterpretation of this feature), the post-modifying Offset in a word-final syllable can be ascribed cultural significance, distinguishing Pitjantjatjara from other Western Desert dialects. Pitjantjatjara alone does not allow Offset consonants to be word final. Some nominal word stems do end in an Offset, e.g. *kulpal* 'mother's brother' or *nyangan* 'these', so in Pitjantjatjara another syllable must be added. Where its functional environment requires no inflection, the suffix *-pa* is added, giving *kul/pal/pa* and *nya/ngan/pa*. In contrast to most inflecting suffixes, the LOCATIVE suffix *-ngka* commences with an Offset that post-modifies a word-final Rhyme, e.g. /ngu/**rang**/ka 'in camp'.

We can now present the familiar clause *wiya ngura nyaratja tjitji ma-ngari*, from the perspective of its sonority wave, in Figure 2.20. I have included a space between each word for legibility, although in practice the sonority wave is continuous, with gaps only between some words.

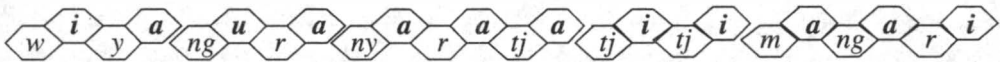


Figure 2.20: Sonority wave of the clause *wiya ngura nyaratja tjitji ma-ngari*

2.5.3 Stress wave

While the energy movement of each syllable in the sonority wave is **culminative** Onset ^ Rhyme, the energy movement of each foot in the stress wave is **diminishing**. A foot begins with a stressed syllable, the Ictus, followed by a weak syllable, Remiss (see Abercrombie 1967). There is a very close complementarity in Western Desert between the foot and the word. Almost every word in the language is spoken with the stress on the first syllable, both in isolation, as in Figure 2.21, and in larger structures of group and clause. (The foot-word complementarity is less clearly defined in other stress-timed languages, such as English, where the relationships between feet and words are more fluid, see Halliday 1994a:292–294, Cléirigh 1998).

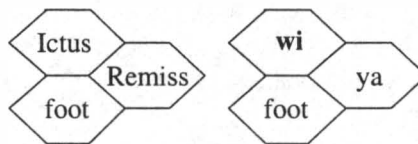


Figure 2.21: Stress pattern of the foot

A foot may also include one or two enclitic syllables (rarely more), following the Remiss, illustrated for the three-syllable word /kang/ku/ru/ 'elder sister' in Figure 2.22. In this case the Remiss and/or enclitic syllables are normally reduced so that each foot is of similar duration, e.g. /kang/k^u/ru/, or /ma/nga/rⁱ/nyⁱ/ 'is lying apart' (see Halliday 1967a, 1994a:293 on this feature in English). The dependent status of the enclitic syllable is represented in Figure 2.22 as lying behind the preceding Remiss.

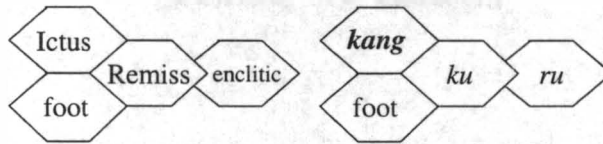


Figure 2.22: Stress pattern of a multisyllabic foot

Where a directional prefix is added to a verb, as in *ma-ngari* 'apart-lie!', it is the prefix syllable that is stressed /**ma**/nga/ri/, in contrast to the non-prefixed stem /nga/ri/. Where a suffix consists of two or more syllables, it is spoken on a separate foot, e.g. the imperfective /**ma**/nga/rin/-**tja**/ku 'to lie apart'.

The stress wave of the clause *wiya ngura nyaratja tjitji ma-ngari* is displayed in Figure 2.23 below, showing the Ictus, Remiss (and enclitic) syllables for each foot/word.

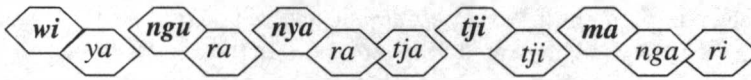


Figure 2.23: Stress wave of the clause *wiya ngura nyaratja tjitji ma-ngari*

2.5.4 Tonicity wave

While the culminative wave of the syllable, and diminishing wave of the foot are fixed structures, at the rank of tone group there is a choice. In the unmarked case the tone group has the same culminative movement as the syllable. It (potentially) begins with one or more Pretonic feet, and culminates with the major pitch movement on the Tonic foot. However in the marked pattern, the Tonic may come at the beginning of the tone group. In either case, the diminishing movement of the stress wave is mapped onto the peak of the tonicity wave, placing the Tonic focus on the first syllable (i.e., the Ictus) of the Tonic foot. This phasing is illustrated for a single tone group in Figure 2.24, and for a whole tonicity wave in Figure 2.25.

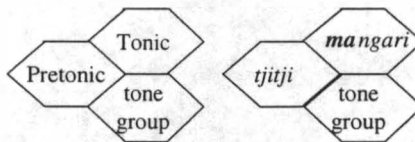


Figure 2.24: Culminative pattern of the tone group

The Pretonic element of the tone group may include more than one foot. In this case the preceding foot is represented as dependent on the final Pretonic foot. This is illustrated in Figure 2.25, which shows the tonicity wave of the clause *wiya ngura nyaratja tjitji ma-ngari*.

The correlation of the tonicity wave with the lexicogrammatical structures of word groups and clauses realises options in INFORMATION DISTRIBUTION and INFORMATION FOCUS, which will be taken up and developed further in §3.4 below, using the model of tonicity as wave-train.

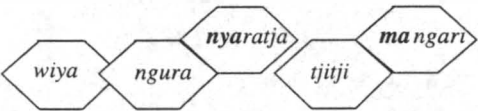


Figure 2.25: Tonicity wave of the clause *wiya ngura nyaratja tjitji ma-ngari*

2.6 Lexicogrammatical ranks

2.6.1 Overview of lexicogrammatical ranks

The relationship between lexicogrammatical ranks is both compositional and realisational. The smallest functionally significant lexicogrammatical units are morphemes which function as parts of words, which function as constituents of groups, which function as elements of clauses. The complementarity of compositional and realisational perspectives on lexicogrammatical ranks is illustrated in Figure 2.26. In this diagram, classes of structures at each rank are given, followed by their experiential functions enclosed in boxes. Structures at each rank consist of a configuration of functions. A function at one rank is realised by a class of structure at the next rank down, represented by arrows. So for example, clause rank functions Medium and Circumstance are realised by the class of *nominal group*; groups rank functions Thing, Numerative and Deictic are realised by the classes of *noun*, *number* and *determiner*, and so on.

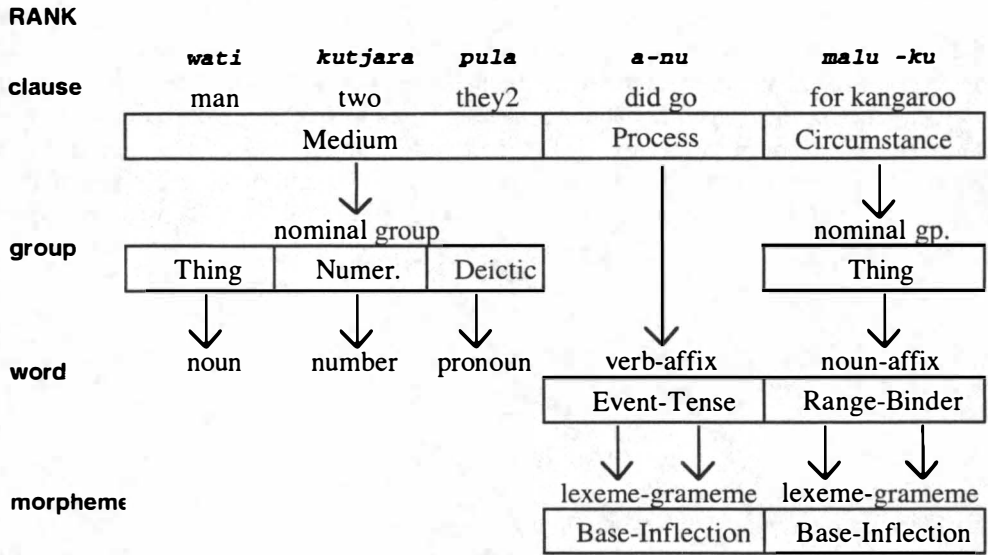


Figure 2.26: Lexicogrammatical rank scale: classes and functions

Participants and circumstances have a multivariate group-rank structure, consisting of functions such as Thing, Numerative and Deictic, and these functions are realised by distinct classes at word rank. However processes do not have a group-rank structure. Verbs may be complexed, but unlike English they do not form multivariate groups. They do however have a multivariate word rank structure, consisting of verb(s) plus affix(es) realising functions such

as Event, Tense, Aspect or Direction. Likewise the final element in a nominal group may also have a multivariate word rank structure, including a suffix whose function is to bind the group into the clause structure as a particular type of participant or circumstance. At morpheme rank I have distinguished two classes, 'lexemes' that function as the Base of lexical items, and 'gramemes' which function as Inflections.

This survey will focus on clause rank resources, because it is in the clause that the three metafunctions come together as exchange, figure and message, to form the 'gateway' to the discourse semantic stratum. We will also briefly discuss group and word rank resources, but morphology will only be covered in the context of its functions at higher ranks. Below the clause, the lexicogrammatical rank scale privileges ideational functions because wording has evolved primarily to realise experiential meanings, at clause rank of types of *process*, *participants* and *circumstances*, and at group rank of types of *people*, *things* and *qualities*. But these wordings are carried on prosodies and pulses of interpersonal and textual meanings that are realised primarily in the phonological stratum.³

2.6.2 Metafunctions and lexicogrammatical ranks

So far we have seen how the language is diversified according to strata. Each rank of the lexicogrammar is also diversified into the metafunctional regions of interpersonal, ideational and experiential meaning. These metafunctions are organised as grammatical systems, such as MOOD, TRANSITIVITY and THEME at the rank of clause. However, realisations of these metafunctions are also distributed across other lexicogrammatical ranks. In Table 2.6 below, the main systems of lexicogrammatical and phonological resources in Western Desert are cross-classified by metafunction and rank. General options in major systems are also given.

2.6.3 Morpheme rank

As with items at higher ranks, morphemes are located at either end of the lexicogrammatical spectrum of delicacy. A large number of morphemes function lexically, as lexemes, i.e. they fulfil delicate functions as lexical stems, realising units at word rank (i.e. verbs, nouns, adverbs etc.). Lexemes are most frequently realised by syllable duplexes, and may themselves be complexed. On the other hand, as discussed in the preceding section, one kind of resource that Western Desert employs to identify the functions of clause elements are inflecting morphemes that are affixed to nominal, verbal and adverbial words. These grammatical morphemes, or 'gramemes', however never function independently of the clusters of realisational strategies with which they react to realise functions at higher ranks of word, group and clause. Other such realisational strategies include lexical relationships between elements, sequence of elements, rhythm and intonation. Nevertheless it is possible to

³ Of course interpersonal and textual meanings are also realised in the lexicogrammar, for example by interrogative and modal items, or conjunctive and reference items, but the role of intonation would seem to a fundamental resource for meaning in these metafunctions. This is suggested by the proliferation of interpersonal and textual lexis in written languages such as English, more so the more written the register. Since it is a spoken language, Western Desert has a comparatively limited range of modal and conjunctive lexis and in general is more dependent on the resources of intonation for realising interpersonal and textual meanings than a language with an evolved written mode such as English. Of course in some interpersonal regions, such as pronoun systems and kin terms, the lexis available to Australian languages is more diverse, precisely because it is spoken face to face between kin.

Table 2.6: Metafunction/Rank matrix (synopses of systems)

	experiential	logical	interpersonal	textual
clause	TRANSITIVITY: FIGURE TYPE: ACTION/ SIGNIFICATION/ RELATION; CIRCUM- STANTIATION: QUALITY/ ROLE/ COMPARISON/ ACCOMPANIMENT LOCATION/ MEANS/ REASON/ PURPOSE/ BEHALF	COMPLEXITY: TAXIS: paratactic/ hypotactic; INTERDEPEND- ENCY TYPE: PROJECTION: mental/ verbal EXPANSION: elaborating/ extending/ enhancing	MOOD: MOOD TYPE: imperative/ indicative; POLARITY; MODAL ASSESSMENT; VOCATION	THEME: TEXTUAL THEME/ INTERPERSONAL THEME/ TOPICAL THEME SELECTION; THEME PROMINENCE: neutral/ foregrounded/ backgrounded
word/ group				
verbal	TENSE: past/ present/ future/ habitual; ASPECT: realis/ irrealis; DIRECTION: away/ towards/ across/ around/ up/ down	COMPLEXITY: hypotactic complexes: duration; phase; conation; succession...		CONJUNCTIVE REFERENCE (non-finite): same/ switch
pronominal	NUMERATION: single/ dual/ plural	COMPLEXITY: hypotactic complexes	PERSON: speaker/ addressee/ non- interlocutor	PHORICITY: anaphoric/ exophoric
nominal	THING TYPE; CLASSIFICATION; EPITHESIS; NUMERATION; QUALIFICATION;	COMPLEXITY: paratactic complexes	INTENSIFICATION: high/median/low	DEICTICITY: TYPE: demonstrative/ personal; PHORICITY: anaphoric/ exophoric
adverbial			INTENSIFICATION: high/median/low	
morpheme	nominal, verbal and adverbial word stems and inflections	hypotactic complexes of word stems and inflections	modal clitics	
tone group		INTERDEPEND- ENCY TYPE: specification; alternation; sequence...	MOOD declarative/ yes-no interrogative; MODAL ASSESS: high/ median/ low...	INFORMATION: DISTRIBUTION: simple/ compound; FOCUS: initial/ final

isolate and list the set of inflecting morphemes in the language, and assign them latinate labels. This in fact is the principal approach of formalist grammars of Australian and other languages, but will constitute only a brief sketch here, before proceeding to examine higher rank functions.

Another type of morpheme that is structurally comparable with inflecting affixes are clitic forms of personal pronouns and modal adjuncts. In common with affixes, clitics tend to consist of just one non-salient syllable that is suffixed to a word. However, they differ entirely in function, since clitics independently realise clause rank functions of participants or modal assessments.

2.6.3.1 Verbal affixes

Verbal affixes realise features in the word rank systems of TENSE, ASPECT and DIRECTION, and in the clause rank systems of MOOD, POLARITY and ORIENTATION. The presence of tense suffixes serve in turn to realise indicative mood, in contrast to imperative suffixes that indicate imperative mood. Aspect suffixes help to realise logicosemantic relations in verb complexes and clause complexes, as well as indicating participant identity. Direction of a process is realised by a small set of verbal prefixes. Accordingly these morphemes will be discussed in the context of the word and clause rank systems that they help to realise. However there is one set of features that has no functional significance above the level of morpheme; this is the variations in the forms of verb endings realising tense and direct imperative mood, between four formal classes of verbs. These verb classes have no semantic significance; they derive partly from variations in articulation of the final syllable of the verb stem, and partly it seems from random phonological factors. Formalist descriptions of Australian languages often classify these verb classes by the form of the direct imperative, so we will follow suit here, in the following Table 2.7.

Table 2.7: Forms of verb endings varying with VERB CLASS

class	imperat.	gloss	future	present	past	past dur.	habitual
-la	<i>tati-la</i>	'ascend'	<i>tati-lku</i>	<i>tati-ni</i>	<i>tati-nu</i>	<i>tati-ningi</i>	<i>tati-lpai</i>
-wa	<i>ukali-wa</i>	'descend'	<i>ukali-ngku</i>	<i>ukali-nyi</i>	<i>ukali-nu</i>	<i>ukali-ngi</i>	<i>ukali-pai</i>
- ('zero')	<i>pitja</i>	'come'	<i>pitja-ku</i>	<i>pitja-nyi</i>	<i>pitja-ngu</i>	<i>pitja-ngi</i>	<i>pitja-pai</i>
-ra	<i>a-ra</i>	'go'	<i>a-nkuku</i>	<i>a-nanvi</i>	<i>a-nu</i>	<i>a-nangi</i>	<i>a-nkupai</i>

All the above verbal suffixes apply only to positive clauses. Where the polarity of the clause is negative, whether imperative or indicative, the verb is suffixed with the 'nominal' suffix *-tja*, followed by the negative item *-wiya*, e.g. *pitja-ntja-wiya* 'not coming'. In this case the mood or time reference of the clause is only apparent from accompanying features of the clausal context or intonation. The negative form also sometimes occurs without the nominal suffix.

2.6.3.2 Nominal affixes

Western Desert has a core repertoire of four nominal case inflections which contribute to realising various participant and circumstantial roles depending on their functional environment in a clause. I have labelled these inflections *active*, *neutral*, *genitive* and

locative. Their realisations for singular personal pronouns, common nominals, demonstratives, and proper names are displayed in Table 2.8.

Table 2.8: Options in NOMINAL INFLECTION

nominal class	active	neutral	genitive	locative
personal speaker	<i>ngayulu</i>	<i>ngayu-nya</i>	<i>ngayu-ku</i>	<i>ngayu-la</i>
pronouns: addressee	<i>nyuntu</i>	<i>nyuntu-nya</i>	<i>nyuntu-mpa</i>	<i>nyuntu-la</i>
non-interactant	<i>paluru</i>	<i>palu-nya</i>	<i>palu-mpa</i>	<i>palu-la</i>
common nominals 'man'	<i>wati-ngku</i>	<i>wati</i>	<i>wati-ku</i>	<i>wati-ngka</i>
demonstratives 'this'	<i>nyanga-ngku</i>	<i>nyangatja</i>	<i>nyanga-ku</i>	<i>nyanga-ngka</i>
proper names	<i>Mitaiki-lu</i>	<i>Mitaiki-nya</i>	<i>Mitaiki-ku</i>	<i>Mitaiki-la</i>

Inflecting morphemes are suffixed to the last element in a nominal group, or to each unit in a pronoun complex or nominal group complex. The roles of active and neutral inflections are to distinguish participant roles in transitive clauses. For example, active is the uninflected form for personal pronouns when functioning as Actor in both transitive and intransitive action clauses, but they are inflected as neutral when functioning as Goal. Common nominals and demonstratives are inflected as active when functioning as Actor in transitive actions, while their uninflected form is neutral when functioning as Goal in transitive or as Actor in intransitive clauses. Proper names are inflected for both active and neutral transitivity roles and are uninflected when functioning as Vocatives. These differences in formal inflectional paradigms between nominal classes do not affect transitivity roles: as in English, the Actor has the same roles in 'he brought me', 'a man brought me' or 'Jimmy brought me', as does the Goal in 'I brought him', 'I brought a man' or 'I brought Jimmy'. Where English distinguishes these roles by sequence in active or a by-adjunct in passive clauses, Western Desert does so with nominal inflections.⁴

The roles of locative inflections vary according to their functional environment, realising circumstantial and participant functions of Place, Time, Means, Accompaniment, Receiver or Source, and are glossed in text examples with appropriate English prepositional phrases, using the prepositions 'in/at/with/to'. Genitive inflections may realise types of causal circumstances, glossed with the prepositions 'of' or 'for', or a possessive Deictic or Token and glossed with 'my/mine', etc. Genitive is also used to indicate the Phenomenon in a mental reaction, realised with a preposition in English only in passive voice. In addition to these four core inflections the following suffixes are also available for realising circumstantial functions as common nominal groups, set out in Table 2.9 below.

⁴ The labels I have used for nominal inflections here are oriented to their clause rank roles rather than their forms, and so differ in part from labels used in formally oriented descriptions of Australian languages. I have used the term 'active' for the inflections that formal grammars label as 'nominative' for personal pronouns, but 'ergative' for other nominals, and I have used 'neutral' where formal grammars use 'accusative' for personals and 'absolute' for others. A semantic interpretation is sometimes ascribed to the 'nominative/accusative' vs 'ergative/absolute' inflectional contrast (e.g. Dixon 1979, 1980, 1994), but I have found no evidence of this in text analyses, or by asking speakers; the contrast is one of form rather than function. The inflectional differences may be associated with the frequency of the transitivity roles these nominal classes fulfil in discourse: personal pronouns are most often in active roles (as Medium), so this has evolved as their uninflected form, whereas common nominal and demonstratives are most often in neutral roles (Range or intransitive Medium), and proper names most often function as Vocatives, so these have evolved as their uninflected forms. (For more discussion of this issue see Rose 1996.)

Table 2.9: Additional options for common nominals in NOMINAL INFLECTION

inflection type	suffix	circumstantial functions	gloss
allative	<i>-kutu</i>	Place or Time	'to (place or time)'
ablative	<i>-nguru</i>	Place, Time or Reason	'from (place, time or event)'
perlative	<i>-wanu</i>	Place	'through (place or time)'
purposive	<i>-kitja</i>	Purpose	'in order to do (thing)'
additive	<i>-kulukulu</i>	Addition	'as well as (person/thing)'
possessive	<i>-tjara</i>	Possessive	'with (possession)'
comparative	<i>-purunypa</i>	Comparison	'like (person/thing)'

2.6.3.3 Morpheme complexes

The range of morphemes available for realising grammatical and lexical functions is expanded in Western Desert by means of complexing. This potential is discussed in more detail in §6.5.4 on morpheme complexing. The complexing potential of prefixing and suffixing morphemes is exemplified for verbs in [2:3].

[2:3]	<i>ngalya-</i>	<i>pitja</i>	<i>-ntja</i>	<i>-ku</i>	<i>-ta</i>	<i>-wara</i>
	β	α	β	γ	δ	ϵ
	centripetal-	coming	-nominal	-genitive	-nominal	-negative
	lest (s/he) come	hither				

In this example, the verb stem *pitja* 'come' is inflected for centripetal direction, and negative purpose. The latter has a special form of the negative verbal suffix *-tawara* 'lest'.

2.6.4 Word rank

Word rank items in Western Desert can be assigned to the classes in Table 2.10.

Table 2.10: Word classes and functions

word class	group function	clause function	example
verb		process	<i>wangka-nyi</i> 'is talking'
noun	Thing		<i>tjukurpa</i> 'story'
personal pronoun	Deictic	participant or circumstance	<i>nganana</i> 'we'
demonstrative pronoun	Deictic	participant or circumstance	<i>nyaratja</i> 'yonder'
proper name		participant	<i>Mitaiki-nya</i>
quality adverb	Epithet	Quality Time	<i>wiru</i> 'good' <i>kuwaripa</i> 'soon'
intensive adverb	Intensifier		<i>mulapa</i> 'really'
number	Numerative		<i>kutjara</i> 'two'
modal adverb		Adjunct	<i>tjinguru</i> 'maybe'

Verbs tend to function as specific process types, either as effective or non-effective actions, verbal processes, mental perceptions or reactions.

Experiential resources at word rank are realised by word inflections, including the options of tense, aspect and direction in verbs, person and number in personal pronouns, and various options for transcategorising word classes to function differently in different grammatical environments.

2.6.4.1 *Tense, aspect and direction*

Verb suffixes may realise tense in indicative clauses, orientation in imperative clauses, or aspect in non-finite dependent verbs, as well as negative polarity. As discussed in Chapter 1, options in TENSE and ASPECT specify the relative time of the process and its relative duration, re-presented as Table 2.11 below. English auxiliary verbs are consistently used in glosses to bring out semantic proportionalities between Western Desert and English tense and aspect systems.

Table 2.11: Options in TENSE and ASPECT

system	feature label	example	gloss
TENSE	future	<i>tati-lku</i>	'will climb'
	present	<i>tati-ni</i>	'is climbing'
	past	<i>tati-nu</i>	'did climb'
	past durative	<i>tati-ningi</i>	'was climbing'
	habitual	<i>tati-lpai</i>	'does climb'
ASPECT	irrealis	<i>tati-ntjikitja</i>	'to climb'
	realis	<i>tati-ra</i>	'climbing'
	completed	<i>tati-ntjanu</i>	'having climbed'

The meanings of these tense and aspect selections in various functional environments was discussed in §1.2.1.3 above. Tense is an option for finite processes in indicative clauses. It indicates the time of an event in relation to the time of speaking, grounding the event time in the context of speaking. Aspect is an option for non-finite processes that are dependent on finite processes, either in a hypotactic ('subordinating') clause complex, or in a verb complex within a single clause. It indicates the time of an event in relation to the primary process of the clause or verb complex. However when the polarity of the clause is negative there is only one possible verb ending, *tati-njtawiya*, literally 'not climbing', whether the clause is indicative or imperative, so that mood and time reference must be discerned by the listener from tone and context.

Options in aspect are selected simultaneously with options in Medium reference. The latter indicates whether the Medium of the dependent clause is the same or switched from the primary clause, as with additive conjunctions. Either of these four options for aspect and Medium reference are available in either verb complexes, or in hypotactic clause complexes. In the environment of clause complexing, they realise logico-semantic relations of time, manner, reason, condition, purpose, and projected perceptions and proposals. This range of enhancing logical relations is comparable to that of English hypotactic clause complexes (Halliday 1994a:215–269). They are set out in Table 2.12 below.

Table 2.12: Simultaneous options in ASPECT and MEDIUM REFERENCE

MEDIUM REFERENCE					
ASPECT	same Medium		switch Medium		LOGICAL RELATIONS
	suffix	example	suffix	example	
realis 'V-ing'	-la, -ra	nyina-ra 'sitting'	-nyangka	nyina-nyangka 'sitting'	time, manner, reason, condition
irrealis 'to V'	-ntjikitja	nyina-ntjikitja 'to sit'	-ntjaku	nyina-ntjaku 'to sit'	purpose, projected perceptions and proposals

The option of completed aspect is much less frequent than realis or irrealis, and does not allow for the distinction in Medium reference.

A small set of inflections realise direction when prefixed to verbs. These prefixes are labelled, glossed and exemplified in Table 2.13.

Table 2.13: Directional prefixes

direction	example	gloss
centrifugal	<i>ma-pitjanyi</i>	'coming away'
centripetal	<i>ngalya-pitjanyi</i>	'coming towards'
tangential	<i>wati-pitjanyi</i>	'coming across'
circumferent	<i>para-pitjanyi</i>	'coming around'

These directional verbal prefixes are in some ways comparable to the functions of locative prepositions in English phrasal verbs. However, the Western Desert prefixes are freely combinable with any verb, whereas English phrasal verbs have become discrete lexical items.

2.6.4.2 Person and number

As with TENSE and ASPECT for verbs, PERSON and NUMBER are word rank systems available for personal pronouns, but are realised by the form of the pronoun itself rather than by affixes. Options in PERSON and NUMBER specify the roles of participants in interaction, and whether they are one, two, or more persons. Each category in PERSON and NUMBER may be realised by a full (salient) pronoun, and many may be realised by a clitic pronoun. Clitic items in Western Desert are non-salient realisations of clause rank functions, including pronouns or modal adjuncts, that are appended to other salient elements of a clause. The paradigm of clitic pronouns in imperative clauses differs from that for indicative clauses. Table 2.14 below gives the realisations of each option in PERSON and NUMBER for active pronouns in imperative clauses, together with the glosses used in examples.

The choice of implicit addressee is classed in this paradigm as a clitic with 'zero' realisation, since this is the non-salient realisation of this function. All other choices of person must be realised explicitly, as a full or clitic pronoun, although clitic is not available where the person is a non-interactant. In indicative clauses the clitic options for addressees and non-interactants are the reverse of those for imperative clauses: it is non-interactants that may be implicit, with *ya* as an option for plural and *pula* for dual non-interactants. Table 2.15 below gives the realisations of each option in PERSON and NUMBER for full or clitic active pronouns.

Table 2.14: Pronouns realising options in PERSON and NUMBER in imperative clauses

PERSON	single			NUMBER			plural		
	full	clitic	gloss	full	clitic	gloss	full	clitic	gloss
addressee	<i>nyuntu</i>	∅	'you'	<i>nyupali</i>	-pula	'you2'	<i>nyura</i>	-ya	'you3'
speaker	<i>ngayulu</i>	-na	'I'	<i>ngali</i>	-li	'we2'	<i>nganana</i>	-la	'we3'
non-inter.	<i>paluru</i>	–	's/he/it'	<i>paluru pula</i>	–	'they2'	<i>paluru tjana</i>	–	'they3'

Table 2.15: Pronouns realising options in PERSON and NUMBER in indicative clauses

PERSON	single			NUMBER			plural		
	full	clitic	gloss	full	clitic	gloss	full	clitic	gloss
non-inter.	<i>paluru</i>	∅	's/he/it'	<i>paluru</i>	-pula	'they2'	<i>paluru</i>	-ya	'they3'
speaker	<i>ngayulu</i>	-na	'I'	<i>pula</i>			<i>tjana</i>		
addressee	<i>nyuntu</i>	-n	'you'	<i>ngali</i>	-li	'we2'	<i>nganana</i>	-la	'we3'
				<i>nyupali</i>	–	'you2'	<i>nyura</i>	–	'you3'

These contrasting pronoun paradigms appear to reflect the relative frequency of person options in proposals and propositions. In proposals one's addressee is the person most frequently made responsible and so may be left implicit (i.e. in commands), while non-interactants are infrequently made responsible and so have not evolved clitic options. In contrast, in propositions it is the identity of non-interactants that may be assumed from the preceding discourse and so left implicit, while dual and plural addressees are infrequently the referents of propositions and so do not have clitic options. In addition clitic options are available for neutral and genitive pronouns, set out in Table 2.16 below.

Table 2.16: Clitic options are available for neutral and genitive pronouns

	single		dual		plural	
	neutral	genitive	neutral	genitive	neutral	genitive
speaker	-ni 'me'	-linya 'us2'	-limpa 'our2'	-lanya 'us3'	-lampa 'our3'	
addressee	-nta 'you'	–	–	–	–	–

The simple pronouns in Tables 2.14, 2.15 and 2.16 refer exclusively to addressee(s) or to non-interactant(s) or inclusively to dual or plural speakers. That is, *nyupali* means 'you two addressees', *ngali* means 'one speaker and one addressee', and so on. However, pronouns may be complexed to include other categories. For example, *paluru nyupali* means 's/he and you', including a non-interactant with addressee, or *paluru ngali*, 's/he and I', includes a non-interactant with speaker. The pronominal system is not limited to one-word realisations of 'inclusive' or 'exclusive' categories, as morphologically focused formal grammars of Australian languages often imply. As mentioned in the previous chapter, numeration in Western Desert nominal groups traditionally consisted of only three primary options, single *kutju*, dual *kutjara* and plural *tjuta*, with plurality potentially adjusted as low *mankurpa* 'few', or high *winki* 'all'. This mirrors the three options for number in the pronoun system, for an individual, a pair or a group, illustrating in a small way the relationships between social and ideational categories (Durkheim 1912).

2.6.4.3 Transcategorisation

Western Desert uses inflections very productively to transcategorise words from one type of transitivity function to another. Transcategorisation is a word rank semogenic process that makes lexical items available for different types of functions at clause, group and word ranks. Words in Western Desert tend to function in specific transitivity roles, including verbs which tend to be either effective or non-effective, but can be transcategorised by means of various affixes. Table 2.17 sets out the general potentials.

Table 2.17: Transcategorisation of word classes and functions

type	feature	example	gloss
Verbalisation			
of Attribute inceptive caused	becoming quality	<i>kura-ri-nganyi</i> 'bad-becoming'	'going bad'
	becoming class	<i>wati-ri-nganyi</i> 'man-becoming'	'becoming a man'
	making quality	<i>kura-ni</i> 'bad-(do)ing'	'spoiling'
	making class	<i>wati-ni</i> 'man-(do)ing'	'making a man, (i.e. initiating)'
	putting quality	<i>tjaru-tju-nanyi</i> 'down-putting'	'pouring down'
	striking quality	<i>wiru-pu-nganyi</i> 'good-striking'	'scraping smooth'
of Identified	assigning identity	<i>ini-ni</i> 'name-(do)ing'	'naming'
of Goal	making thing	<i>wiltja-ni</i> 'shelter-(do)ing'	'making shelter'
	putting thing	<i>walka-tju-nanyi</i> 'mark-putting'	'writing'
	striking thing	<i>miri-pu-nganyi</i> 'body-striking'	'murdering'
Effectivisation			
of non-effective processes	cause to act	<i>urin-tjinga-nyi</i> 'turn-causing'	'stirring'
	cause to move/stop	<i>tjarpa-tju-nanyi</i> 'enter-putting'	'inserting'
	forcing to move/stop	<i>ngari-lyi-nanyi</i> 'lie down-forcing'	'laying down, (e.g. child)'
Actionisation			
of relations	assuming stance	<i>nyina-kati-nyi</i> 'sit-carrying'	'sitting down'
Continuation			
of actions	V-continuously	<i>nguril-kati-nyi</i> 'search-carrying'	'searching along, (i.e. tracking game)'

Table 2.17: (continued) Transcategorisation of word classes and functions

Adverbialisation			
of Epithet	V-ing with quality	<i>wiru-ra</i> 'good-ing'	'(doing) well'
Adjectivisation			
of Thing	associated with thing	<i>wati ngura-tja</i> 'man place-nominal'	'local man'
of Epithet	associated with quality	<i>ngura winki-tja</i> 'place all-nominal'	'of every place'
of Time	associated with time	<i>tjukurpa iriti-tja</i> 'story old-nominal'	'ancient story'
of Process	associated with process	<i>mai runguny-tja</i> 'food grind-nominal'	'milled grain'
Nominalisation			
as participant	one who V-s	<i>wali palyal-pai</i> 'house make-habitual'	'house builder'
as Qualifier	one V-ing/having V-ed	<i>wati kuwari pitjan-tja</i> 'man now come-nom.'	'the men who just came'

At clause rank, nouns and adjectives functioning as Attributes can become verbs functioning as inceptive or caused relations, as can certain types of Value such as 'name' in identifying relations. This enables relations, that are otherwise without verbs, to be unfolding or to be brought into being by an additional Agent. Goals can also be verbalised to function as intransitive material actions, reconstruing an effect on a Goal as simply an activity of the Actor. Also at clause rank, verbs can be transcategorised to function as different process types—non-effective as effective actions and relational verbs of stance, *nyina-* 'sit', *ngari-* 'lie', *ngara-* 'stand', as unfolding actions.

Within word rank, processes of indeterminate duration can become continuous processes by adding the suffix *-kati* 'carrying'. Between ranks, adjectives functioning as group-rank Epithets can become adverbs functioning as clausal circumstances of Quality; adjectival groups functioning as Classifiers can be fashioned from items functioning as Epithets, Things, circumstances of Time or nominalised processes; and finally verbs can also be nominalised in down-ranked clauses functioning as group-rank Qualifiers or as a clause participant.

It should be emphasised at this point that such nominalisations of processes are a relatively minor motif in the grammar, and that nominalised processes do not function as Head of a nominal group. That is, nominalisations cannot become metaphorical participants as they commonly do in written English registers (see Halliday 1998 on transcategorisation and grammatical metaphor in English). In Western Desert, transcategorisation is primarily a resource for expanding the functionality of lexical items, as well as for realising inceptive and caused relations.

2.6.5 Group rank

Word groups realise clause rank functions, but may also realise complex phenomena themselves. There are three general classes of word groups in Western Desert—nominal, verbal and adverbial—realising semantic functions such as people, things, places, processes

and qualities. A general pattern in all types of groups is that the item that grounds the group in the context of the clause in terms of mood, tense, aspect, person, number or transitivity role, i.e., its **deictic** element, is the last element in the group. The reason for this is undoubtedly informational: the culminative focus is on the last lexical item of the structure, so that the grammatical items following are part of the New but are not salient. This applies to both grammatical words and inflecting morphemes.

2.6.5.1 Nominal groups

The Head of a nominal group is the element functioning as the Thing, defined by Halliday (1994a:189) as “the semantic core of the nominal group”, and expanded by modifying elements. Nominal groups have comparable options for expansion as in English, although in the reverse sequence: Thing, Deictic, Qualifier, Classifier, Epithet, Intensifier, Numerative, and finally the inflection. However it is uncommon to see nominal groups with more than three of these elements, as in example [2:4] below.

- [2:4] *ngura* *kutjupa* *tjuta-ngka*
 place different plural-locative
 Thing **Epithet** **Numerative**
 in numerous places

Nominal groups are more often expanded to specify personal identities, rather than classes and qualities of things (perhaps a feature of spoken modes in general). This is illustrated in example [2:5] below with a nominal group complex that specifies an identity with the name *Kipara*.

- [2:5] *wati* *kutju-ngku* *Kipara-ngku*
 man one-active Kipara-active
 Thing **Numerative** **Thing**
 only one man, only Kipara [1=2]

In example [2:6] below, an identity is first indicated with a demonstrative pronoun, and then specified with a personal pronoun complex as Deictic.

- [2:6] *pala* *palu-nya* *tjana-nya*
 there it-neutral them-neutral
 Thing **Deictic** [1=2]
 those ones there

2.6.5.1a DEIXIS

Deixis is by far the most frequent form of modification in nominal groups. Its functions are textual, as set out in §3.2.1 below. Here I will exemplify their structural potential within the nominal group.

2.6.5.1a (1) Personal Deictics

A nominal group with third person pronoun as Deictic may have a common nominal or a demonstrative Thing, that represents a general class of entities, as in examples [2:7] and [2:8] below.

- [2:7] *waru* *palu-nya*
 fire that-neutral
 nominal Thing **Deictic**
 that fire
- [2:8] *pala* *palu-la*
 there that-locative
 demonstrative Thing **Deictic**
 at that there

The personal Deictic may also be a complex, as in example [2:9].

- [2:9] *pala* *palu-nya* *tjana-nya*
 that it-neutral them-neutral
 Thing **personal** **Deictic**
 those ones there

Where the Thing is nominal, a demonstrative Deictic usually follows it immediately, and may then be followed by a personal Deictic that is inflected for transitivity function, e.g. *palu-nya* [Range], as in example [2:10].

- [2:10] *waru* *panya* *palu-nya*
 fire that it-neutral
 Thing **demonstrative Deictic** **personal Deictic**
 that fire I mentioned

2.6.5.1a (2) *Demonstrative Deictics*

While personal Deictics always come last, demonstrative Deictics have other options. They may come last, as in example [2:11]:

- [2:11] *anangu* *tjuta* *panya*
 person many that
 Thing **Numerative** **Deictic**
 those many people

Demonstratives may follow the Thing but precede other elements (see examples [2:12–2:14]):

- [2:12] *anangu* *panya* *kutjupa* *tjuta*
 person that another many
 Thing **Deictic** **Epithet** **Numerative**
 those various people
- [2:13] *machine* *panya* *wiru*
 machine that good
 Thing **Deictic** **Epithet**
 such good machines
- [2:14] *anangu* *panya* *winki* *mulapa*
 person that every truly
 Thing **Deictic** **Numerative** **Intensifier**
 those very many people

A demonstrative Thing may also be modified by a temporal Deictic [2:15], as may a personal Deictic [2:16]. Note that these groups are inflected as locative, realising circumstances of location in Time.

[2:15] *nyanga mala-ngka piruku ngura ngana-la*
 this after-locative again at what place?
Thing temporal Deictic
 following this, again at what place?

[2:16] *pala palu-la kuwaripa-ngka*
 there at that before-locative
Thing personal Deictic temporal Deictic
 before that time

Within nominal groups there may be an internal culminative stress pattern. This means that a demonstrative Deictic may also precede the Thing, as in the group in example [2:17] below *nyara anangu tjuta-ngka*, where culminative focus falls on *tjuta-ngka*, and the Deictic *nyara* 'yon' is non-salient.⁵

[2:17] *ka panya Tonkin-tu kuli-ningi nyara anangu tjuta-ngka*
 and that Tonkin was listening yon people many-locative
Deictic Thing Numerative
 And, that is, Tonkin was listening to all those people.

However, if an anaphoric demonstrative *panya* precedes a Thing, it is not necessarily functioning as a Deictic; it may be functioning as a conjunctive element, as in example [2:18] below.

[2:18]
 α *kuli-la*
 listen-!
 β *panya Lands Trust nyangatja nyuntu-nya u-nganyi*
 that Lands Trust this to you are giving
Thing Deictic
Goal Recipient Process

2.6.5.1b EPITHESIS, INTENSIFICATION AND NUMERATION

The next most common type of nominal modification are Epithets and Intensifiers. Epithets modify an entity in terms of a quality. These qualities are usually in binary systems of positive and negative value, i.e. they realise an experiential concept of quality as well as an interpersonal value of polarity. Some common options are set out in Table 2.18 (see also

⁵ Eckert and Hudson (1988:84–102), following Goddard (1985), also recognise that “unlike English, the demonstratives can take more than one position in a phrase”, but claim it realises an experiential contrast they label ‘restrictive’ and ‘non-restrictive’. However, the function of this structural contrast is shown in Appendix A.2.5 below to be not experiential but textual, enabling different elements to be focused as New information. The postulated ‘restrictive-non-restrictive’ semantic distinction arises from the universalist preoccupation with finding experiential functions for constituent order in languages other than English. Constituent order is not used to realise contrasts in either experiential or interpersonal meanings in Western Desert, only textual ones.

Eckert & Hudson 1988:129). Any of these items may also function at clause rank as an Attribute.

Table 2.18: Some Western Desert epithets

positive		negative	
item	gloss	item	gloss
<i>wiru</i>	'good'	<i>kura</i>	'bad'
<i>pulka</i>	'big'	<i>tjukutjuku</i>	'little'
<i>wara</i>	'tall'	<i>mutumutu</i>	'short'
<i>lipi</i>	'wide'	<i>utju</i>	'narrow'
<i>tjukururu</i>	'straight'	<i>kalikali</i>	'crooked'
<i>kunpu</i>	'strong'	<i>upa</i>	'weak'
<i>pukulpa</i>	'happy'	<i>tjiturutjituru</i>	'sad'
<i>ninti</i>	'aware'	<i>ngurpa</i>	'ignorant'
<i>tjula</i>	'soft'	<i>wituwitu</i>	'hard'
<i>itjanu</i>	'verdant'	<i>pilti</i>	'dry'
...		...	

Intensifiers are a small set of adverbs that intensify the positive or negative value of an experiential element, set out in Table 2.19. The function of Intensifiers is interpersonal rather than experiential, and is complemented by tonic focus and timbre on the intensified group element. These items otherwise function as clause rank modal Adjuncts (see §4.7 on modal assessment).

Table 2.19: Intensifiers

item	gloss
<i>kutju</i>	'only'
<i>nguwampa</i>	'nearly'
<i>mulapa</i>	'really'
<i>alatjitu</i>	'absolutely'
<i>wiyatu</i>	'not at all'

Numeratives are also a very small set, consisting of 'single', 'dual' or 'plural'. The option of 'plural' may be intensified both lexically, as 'few, some, very many, all' set out in Table 2.20 below, and grammatically by Intensifiers.

Table 2.20: Numeratives

item	gloss
<i>kutju</i>	'single'
<i>kutjara</i>	'dual'
<i>tjuta</i>	'plural'
<i>mankurpa</i>	'few'
<i>tjara</i>	'some of'
<i>winki</i>	'very many'
<i>(u)wankarra</i>	'all'

This system reflects the number options in personal pronouns, i.e. it originates in the speaker/ addressee/ non-interactant categories of social interaction (e.g. I/ you/ them), and is sufficient for a culture not based on accumulation and exchange of material value. Examples of Epithets, Intensifiers and Numeratives follow. The structural sequence is normally Thing ^ Epithet ^ Numerative ^ Intensifier.

In example [2:19] the Thing *minyma* is expanded with the Numerative *kutjara*, while in example [2:20] the Thing *anangu* is expanded with the Numerative *tjuta*, to realise the plural 'people'.

- [2:19] *watarku minyma kutjara tjawa-ningi*
 heedlessly woman two were digging
Thing Numerative
 Heedlessly the two women were digging.

- [2:20] *anangu tjuta*
 person many
Thing Numerative
 people

In example [2:21] the group is inflected as ablative *-nguru* 'from', realising Time: movement away.

- [2:21] *kinara kutju-nguru*
 month one-allative
Thing Numerative
 after one month

Example [2:22] is a clause that includes two nominal groups with Numeratives. The second group is inflected as allative with *-kutu* 'towards', realising Place: movement towards.

- [2:22] *letter uwankara an-u ngura winki-kutu*
 letter whole lot did go place to every
Thing Numerative Thing Numerative
 All the letters went to very many places.

In the following examples, number, quality and possession are intensified.

- [2:23] *anangu panya wingki mulapa*
 person that every truly
Thing Deictic Numerative Intensifier
 those really very many people

- [2:24] *kuniya pulka alatjitu*
 python big absolutely
Thing Epithet Intensifier
 an absolutely huge python

- [2:25] *nyuntu-mpa alatjitu*
 yours absolutely
Thing Intensifier
 absolutely yours

2.6.5.1c CLASSIFICATION

Options for Classifiers include things that may otherwise function as Attributes, and facets of things. Classification is not a major feature of nominal groups in Western Desert. This is understandable in an extremely stable small-scale culture in which the world of things is lexically classified, and needs relatively little grammatical sub-classification. There are no adjectives in the language that are not open to intensification, and I have therefore classified adjectival modifiers as Epithets above, following Halliday (1994a:184–186).

The general Epithet *kutjupa* ‘another’, frequently occurs with *tjuta* to realise the general Classifier *kutjupa tjuta* ‘various’, as in example [2:26]. It may also be iterated as *kutjupa kutjupa tjuta* to realise a general class of Thing ‘various things’.

- [2:26] *anangu panya kutjupa tjuta*
 person that various
Thing Deictic Classifier
 those various people

2.6.5.1c (1) Classifier: thing

In order to function as a Classifier, nouns, adverbs or verbs may be transcategorised with the nominal inflection *-tja*, as shown in Table 2.17 above. This transcategorisation as Classifier is exemplified as follows for a temporal adverb *mungartji* ‘yesterday’ [2:27], a noun *ngura* ‘place’ [2:28], and a verb *runka-* ‘grinding’ [2:29].

- [2:27] *kuka mungartji-tja*
 meat of yesterday
Thing Classifier
 yesterday’s meat
- [2:28] *wati ngura-tja*
 man of place
Thing Classifier
 local man
- [2:29] *mai runka-ntja*
 food from grinding
Thing Classifier
 milled grain

2.6.5.1c (2) Classifier: facet

Facets are inalienable parts of entities, including things like a person’s name [2:30], body parts [2:31], and the facets of things, such as *katu* ‘top’, *unngu* ‘inside’ or *tjaa* ‘mouth/entrance’ [2:32]. The Facet is not inflected, but construed as elaborating the Thing.

- [2:30] *paluru ini Peter-nya*
 he name Peter
Thing Facet
 His name is Peter.

[2:31] *ngayulu kata pika*

I head sore

Thing Facet

My head aches.

[2:32] *nyangatja piti tjaa*

this burrow mouth

Thing Facet

This is a burrow mouth.

2.6.5.1d QUALIFICATION

There is also a potential for things to be qualified by embedded clauses or circumstances. The Qualifier functions like a Deictic to indicate definiteness, and like demonstratives, follows the Thing but precedes a Numerative or personal Deictic. Embedding is a relatively infrequent feature of discourse, in contrast to English. (See §3.4.1 in Chapter 3 on informational reasons why English favours embedded circumstances, while Western Desert qualifies entities with a separate clause-final circumstance.)

Embedded clauses as Qualifier are illustrated in examples [2:33–2:34] (verb inflected as NOMINAL).

[2:33] *wati [[kuwari pitjan-tja]] tjuta nyaratja nyina-nyi*

man now coming-nominal plural there are sitting

Thing Qualifier: process Numerative

Those men who came just now are over there.

[2:34] *wati panya [kapi ilu]-ngku tjapi-ni*

man that water thirsty-active is asking

Thing Deictic Qualifier: relation

That man who is thirsty for water is asking (for a drink).

Embedded circumstances as Qualifier are illustrated in examples [2:35–2:36].

[2:35] *wati pala [kulata-tjara] tjuta*

man that spears-possessive plural

Thing Deictic Qualifier: possessive Numerative

those men with spears

[2:36] *nyuntu-mpa [titutjara-ku alatjitu]*

yours always-genitive absolutely

Thing Qualifier: quality

yours for absolutely ever

2.6.5.2 Adverbial groups

Adverbial groups realise circumstances of Quality or Time and consist of a manner or temporal adverb as Head and potentially one or more Intensifiers.

- [2:37] *titutjara-ku alatjitu*
 always-genitive absolutely
Quality Intensifier
 absolutely forever

- [2:38] *ti yai yai-ngku panya mapalku alatjitu u-ngangi*
 DAA that quickly absolutely was giving
Quality Intensifier

That DAA (Department of Aboriginal Affairs) was giving funding immediately.

- [2:39] *kuwari kutju alatjitu*
 now only absolutely
Time Intensifier Intensifier
 only just right now

- [2:40] *titutjara ngarakati-ngu rawa alatjitu*
 always stopped continuously absolutely
Quality Intensifier
 It always stopped, absolutely always.

2.6.5.3 Verbal and pronominal groups

From the experiential perspective, verbal and pronominal groups have a simple structure of Head and Modifiers, i.e. their grammatical structure is univariate hypotaxis, not multivariate like nominal and adverbial groups. The Head of a pronominal or verbal group is the last item, in contrast to nominal and adverbial groups, since this is the element that carries the inflection for mood, tense, aspect, person, and number. The Modifier element may have a serial structure, illustrated in example [2:41].

[2:41]

- 1 *palu tjinguru nganana pampa-ringku-la tjilpi-ringku-la*
 but maybe we3 becoming old women becoming old men
Modifier 1 Modifier 2

wiya-ringanyi

are finishing

Head (tense)

But maybe as we become old men and old women we'll pass away,

- +2 *ka piruku pakali tjuta-ngku katja tjuta-ngku puliwiri-ngku*
 and further many grandsons many sons grand daughters
Modifier 1 Modifier 2 Modifier 3

untalpa-ngku

daughters

Modifier 4

tjana

they3

Head (person+number)

artunmana-nyi

are taking care

and our grandsons, sons, grand-daughters and daughters will be taking care (of the land).

The logical potential of verbal and pronominal groups is addressed further below in §6.61–§6.63 on complexing at word and group rank in Chapter 6.

2.6.6 Metafunctions and clause rank systems

The clause is the unit of linguistic structure in which metafunctions are phased together to realise discourse semantic units of exchange move, figure and message. It is for this reason that clause rank features are the main focus of this volume in the chapters to follow. This section provides a brief introduction to major systems at clause rank that realise these discourse semantic units, of MOOD, TRANSITIVITY and THEME respectively.

2.6.6.1 Overview of clause rank systems

At the rank of clause, each metafunction is realised by distinct systems of grammatical resources. The primary systems are those which enable each type of meaning to be mapped onto the clause, including the interpersonal system of MOOD, the experiential system of TRANSITIVITY, and the textual systems of THEME and INFORMATION. Matthiessen (1995:16) summarises these as follows:

(1) MOOD is part of the **interpersonal** metafunction, which is a resource for *enacting* roles and relationships between speaker and listener. Through interaction in dialogues, this metafunction provides the potential for creating and maintaining intersubjectivity; speakers and listeners use the interpersonal metafunction to collaborate in producing text, 'co-authoring' text; and in doing so they are at the same time using the interpersonal resources to create, maintain and revise the systems that 'lie behind' these texts. MOOD is the grammatical system of dialogic interaction: it provides the speaker with a range of options in adopting a speech role such as questioner or commander and assigning a complementary role to the listener such as answerer or complier. [Examples from Text [1:1] include M as 'questioner' and K as 'answerer', and K as 'commander' with M as 'complier', D.R.]

(2) TRANSITIVITY is part of the **ideational** metafunction, which is a resource for *construing* our experience of the phenomena in the world around us and the world inside us. The ideational metafunction provides the potential for creating, maintaining and revising knowledge in the form of meaning; for classifying, reasoning about and modelling our experience... TRANSITIVITY is concerned with our experience of goings-on, flux, in particular; it construes a quantum of change as process, participants involved in it and attendant circumstances. Other ideational resources include those for representing things and circumstances, for chaining clauses in to clause complexes... [Examples from Text [1:1] include *ngari/ ma-ngari* as process, *ngayulu* as participant, and *nyangangka/ ngura nyaratja* as circumstance, D.R.]

(3) The **textual** metafunction, which is a resource for *presenting* the interpersonal and ideational meanings as information organised as text in context. It enables speakers to differentiate different informational states such as thematicity, newsworthiness and identifiability in order to guide their listeners in processing the information being presented. Major resources include THEME and INFORMATION.

The basic resources of these systems in Western Desert are summarised in the following sections on MOOD, TRANSITIVITY and THEME.

2.6.6.2 Basic MOOD in Western Desert

The most general choice in MOOD is between imperative and indicative clauses, correlating with the generalised speech functional categories of 'proposal' or 'proposition', which are capable of functioning as moves in an exchange between speakers. Variations in imperative

mood realise different types of proposal such as command, offer or suggestion, depending on the person obligated to carry out the proposal. Proposals can also be oriented as direct or oblique by the verb suffix, and assigned various degrees of force by tone contours. The unmarked imperative tone rises from mid to high, and then falls to low, exemplified for a command in [2:42] below. Strong force is realised by a high falling tone, exemplified for a suggestion in [2:43]. In the examples that follow, tone contours are indicated with graphic symbols to facilitate reading. Each line corresponds to at least one whole tone group, and additional tone group boundaries are indicated with a double slash //.

[imperative: jussive]

[2:42] *wala-ngku watja-la*
 quickly tell-!
 Tell me quickly!

[imperative: suggestive]

[2:43] *a-ra -la // uru-kutu*
 go-! we3 to waterhole
 Let's go to the waterhole!

Indicative mood is used to negotiate propositions, as statements, yes-no questions or element (*nya-*) questions. It is realised by the presence of tense suffixes on the verb, if the clause represents a process. Clauses without verbs that represent relations between entities are inherently indicative. If the indicative clause is declarative, the unmarked tone is mid to low fall; if yes-no interrogative, the unmarked tone is rising. Example [2:44] is a dialogic pair from an exchange.

[indicative: yes-no interrogative -> declarative]

[2:44]

A *uti -ya nyanga-ngi*
 clearly they3 were seeing?
 Could they see it clearly?

B *uwa nyaku-la ura-ra kati-ngu*
 yes seeing collecting did bring
 Yes, having seen it, they collected it and brought it back.

Element interrogatives demand the identity of a wide variety of participants [2:45], circumstances or processes. Their unmarked tone is rise-fall, as for imperatives.

[element interrogative]

[2:45] *ngana-lu -nta pu-ngu*
 who? you did hit
 Who hit you?

Interpersonal functions have tended to be marginalised to date in descriptions of Australian languages, treated as sub-types of transitivity structures, or as lists of particles ancillary to major experiential word classes, and the complex role of intonation in interpersonal meaning has been largely unexplored. Such incomplete analyses have

contributed to considerable misunderstandings, and sometimes implausible theories of exotic 'communication styles' in Australian languages. I have made an effort here to illustrate the functions of interpersonal grammatical resources in enacting Western Desert relationships in discourse, in the hope that this may lead to a richer and more accurate understanding of communication in Australian cultures.

2.6.6.3 Basic TRANSITIVITY in Western Desert

From the perspective of experiential meaning, a clause in Western Desert represents a process or a relation between entities. I have used the semantic term *figure* here to include processes and relations (following Halliday and Matthiessen 1999). Each figure involves at least one participant, the Medium; it may be extended to one or more other participants, its Range; and it may also be associated with one or more Circumstances. The Medium in Western Desert is the generalised core participant in a clause, which acts, senses, says, or is assigned an attribute or identity. It is realised by the unmarked 'nominative' form of personal pronouns, whether the clause is transitive or intransitive, e.g. intransitive [2:46], transitive [2:47] and verbless relation [2:48].

[non-effective action]

[2:46] *ngayulu a-nu*
 I did go
Medium Process
 I went.

[effective action]

[2:47] *paluru malu waka-nu puli-ngka*
 he a kangaroo did spear in the hills
Medium Range Process Circumstance
 He speared a kangaroo in the hills.

[relation]

[2:48] *nyuntu ninti kuwari*
 you (are) aware now
Medium Range Circumstance
 You know now.

Other realisations of Medium, including demonstratives, proper names or common nominals, may be inflected as active in transitive clauses, to distinguish Medium from Range.⁶ The active inflection is indicated in bold type in example [2:49].

⁶ As mentioned in fn. 4 above, the term *active* is preferred here to the common use of 'ERGative case' in Australian descriptions, since the latter is claimed to denote the meaning of agency—hence Dixon's and others' 'agentive subject' (A). This is not the case in example [2:49] above, where the Sayer actualises the saying, but is not the agent of a material effect. The function of the active inflection is to distinguish Medium from Range in transitive clauses. This inflection is the unmarked (so-called 'nominative') form of pronouns, which typically function as Medium, but needs to be marked in common and proper names, because they more typically function as Range. As discussed in §0.5.4.2 above, the extrapolation from the so-called 'ergative' morpheme to the claim that Australian languages are 'ergative' (e.g. Dixon 1980), is seriously overstated. The model of process in Western Desert is primarily transitive—concerned with how the process is extended to a Range—than ergative like modern English, which has become more concerned with causation of processes (Halliday 1994a).

[verbal signification]

[2:49] *kuta-ngku* *-ni* *watja-nu*
 elder brother me told
Medium Range Process
 My big brother told me.

The term Range generalises other participant functions, which involve the entity that the process or relation is extended to, i.e. the thing or person that is acted on, done for or given to, said, addressed, perceived or reacted to, or the attribute or identity of the Medium. The suffix distinguishing the Range varies according to which one of these specific roles it fulfils. Circumstances include the logico-semantic categories of time and place, reason, purpose, means, accompaniment, role, comparison and quality, and are realised by nominal, verbal or adverbial groups depending on the type. The analysis of transitivity presented here considerably elaborates the binary model of Dixon's and other descriptions of clause grammar in Australian languages, mentioned in §0.5.4.2 above. I have tried to show in Chapter 5 below how the model of experience immanent in the transitivity system of Western Desert is considerably richer than such reductive rule definitions allow for.

2.6.6.4 Basic THEME in Western Desert

The textual resource of Theme is employed in Western Desert for organising the structure of a clause as a message that has relevance to its context, and for adjusting the relative prominence of messages in the flow of discourse. Theme is realised in Western Desert by first position in the clause; that is the structural starting point of a clause is employed as the point at which the message is related to its context, in three possible ways. Each Theme includes an element that is the experiential starting point for the message, grounding it in the field of discourse. This experiential Theme (also known as 'topic') may be preceded by an interpersonal element such as a modal item, positioning the message in the speakers' interaction, and by a textual element such as a conjunction that connects the message to the preceding discourse. An example with all three possible thematic elements is given in example [2:50]. Themes are underlined in the examples that follow.

[2:50] *ka kunyu wati kutju-ngku Kipara-ngku* *tili wirutjara-ngka* *nyina-ngi*
 and reportedly one man, Kipara with good brands was living

textual Theme	inter- personal Theme	experiential Theme

In all major clauses the Medium is identified within the Theme. Its identity is either presented as a thing or a name (or both as in example [2:50]), or presumed by a salient pronoun, clitic pronoun or switch reference conjunction. These options are illustrated in the following extract [2:51], from a narrative about the mythic origin of fire.

[2:51]

1 *munu riona-ya* *watarku* *nyina-ngi*
 and they-they in ignorance were living
Medium

...and those people were living in ignorance.

- +2 ka kunyu wati kutju-ngku Kipara-ngku tili wiru tjara-ngka nyina-ngi
and it's said one man, Kipara with good brands was living
Medium

But apparently there was one man, Kipara who was living with fire with good brands.

- +3 ka ngura kutjupa tjuta-ngka wati kutjupa tjuta-ngku kuli-ni
and in many different places many different men are thinking
Medium

wati kutju
one man

So in numerous places, a great many men were thinking of this one man.

In the Theme of clause 1 the Medium is first identified by the additive conjunction *munu*, as the same as the Medium of the preceding clause, and then doubly identified by a salient and clitic pronoun *tjana-ya* 'they'. In +2 the identity of the Medium is identified as different from that of 1 by the additive conjunction *ka*, and is specified by a nominal group *wati kutjuningku Kipara-ngku* 'one man, Kipara'. In +3 the Medium identity is again switched by *ka*, and specified by a nominal group *wati kutjupa tjuta-ngku* 'many different men'. But here the Medium is preceded by another experiential Theme, a Place *ngura kutjupa tjuta-ngka* 'in many different places'. In contrast to Halliday's (1994a) description of English Theme, the thematic potential of Western Desert clauses is not consumed until the Medium is identified.

Example [2:51] also illustrates the contrast in thematic prominence between neutral (1) and foregrounded (+2, +3), realised by the relative salience of the experiential Theme. The neutral Theme of 1 is spoken on one rhythmic foot, whereas the foregrounded Themes of +2 and +3 occupy three and six feet. Furthermore the Medium identity in +2 is foregrounded by its active inflection. In this example, foregrounded Themes function discursively to foreground the changes in Medium identity in +2 and +3.

Theme has had little attention in Australian linguistics, with the exceptions of Kilham (1977) on Theme in Wik-Munkan discourse, and McGregor on Kuniyanti clauses, both using Halliday's 1967 model of Theme, and Bowe (1990) on 'constituent order' in Western Desert clauses, using Comrie's 1981 formalist notion of 'syntactically basic word order'. Bowe improves on Dixon's influential dismissal of textual organisation mentioned in §0.5.2 above, but is limited by a formalist non-discursive perspective and lack of intonation analysis. The model developed here elaborates the functions of Theme in Western Desert discourse, and relates them to variations in information structure realised by intonation.

2.7 Discourse semantic ranks

The semantic stratum is the interface between lexicogrammar and context. It functions to semanticise features of context, including interactions between members of a culture and the activities they are engaged in or experience. These meanings are grammaticised in turn in the lexicogrammatical stratum.

2.7.1 *Meaning and discourse*

We have already introduced the metafunctional organisation of the semantic stratum, and exemplified each metafunction's realisation in grammatical systems. Interpersonal meanings

enact relationships through systems of speech function and assessment. Ideational meanings construe experience as sequences of figures and taxonomies of things, people, processes and qualities. Textual meanings present enactments and construals as quanta of information with variable statuses such as thematicity, newsworthiness and identifiability. However these elements do not occur in isolation, but in the context of unfolding discourse. In other words, the basic semantic unit is not a word, group or clause but a text unfolding in social context.

A text is realised by one or more clauses. As we have seen, each clause can enact a **move** in an exchange, construe a **figure** in a sequence and phase the move and figure into a **message** that contextualises their elements in the information flow. The degree of intermediate organisation between the clause and the text depends on features of the context in which it unfolds, such as the mode, or role that language is playing in the context. For example, if the mode is dialogic then the primary organisation will be exchange of speech roles, and each move in the exchange will tend to be realised by one, or at most a few clauses, such as Text [1:1]. If the mode is monologic then the text will tend to be organised as a series of activity sequences realised by clause complexes, as in example [1:2]. Intermediate between these types are group interactions such as meetings, in which each interactant may present a brief monologue, within a dialogic framework. But whether a text is constructed individually or jointly, it will tend to be both cohesive and coherent. Halliday and Hasan (1976:23) define text in these terms, as follows:

The concept of COHESION can therefore be usefully supplemented by that of REGISTER, since the two together effectively define a text. A text is a passage of discourse that is coherent in these two regards: it is coherent with respect to the context of situation, and therefore consistent in register; and it is coherent with respect to itself, and therefore cohesive.

2.7.2 Overview of discourse semantic systems

Martin (1992:26–27), extending the work of Halliday and Hasan (1976) on cohesion, suggests a metafunctional organisation for the discourse semantic stratum in four systems:

NEGOTIATION is an interpersonal system concerned with discourse as dialogue... [For example] a sequence of speech acts which we might gloss informally as question, nomination, answer and validation are syntagmatically related to each other and systemically related to other types of exchange.

IDENTIFICATION is a textual system concerned with tracking participants in discourse. At issue here is the way in which people, places and things are introduced in text and potentially referred to again once introduced.

CONJUNCTION focuses on logical meaning - on relations of addition, cause and comparison between messages, as these are variously realised through paratactic, hypotactic and cohesive conjunctions.

IDEATION attends to a variety of experiential relations among “lexical” items - hyponymy, antonymy, synonymy, meronymy and so on.

The resources of these systems each contribute to organising cohesive text, from interpersonal, textual, logical and experiential perspectives. Although the survey here focuses on the grammatical systems that realise these discourse semantic regions, it contextualises grammatical resources in discourse where appropriate. For example, Chapter 3 on textual resources begins by examining resources for IDENTIFICATION, in order to establish a discursive context for looking at the grammatical systems of THEME and INFORMATION. We

have looked briefly in §1.3.4 at ways in which participants, processes, circumstances and interpersonal elements are woven into text through Theme and New, as lexical and reference items; this perspective will be the point of departure for the survey as a whole. Chapter 4 on interpersonal resources begins with analysis of dialogic texts and discussion of resources for EXCHANGE, already exemplified with Text [1:1], in order to contextualise the grammatical systems of MOOD and MODAL ASSESSMENT. Chapter 5 on experiential resources focuses on the clause rank systems of TRANSITIVITY, but contextualises these within the activity sequences in which they function. Chapter 6 on logical resources is primarily concerned with the text constructing functions of COMPLEXITY at clause rank. As Western Desert is a spoken language, these are primarily structural relations within clause complexes, rather than cohesive relations of conjunction between clause complexes that are characteristic of a written mode (e.g. Halliday & Hasan 1976, Halliday 1989, Martin 1992), although cohesive conjunction is also a feature of Western Desert text.

So while the focus of the survey is on the systems of grammatical features that realise the code, these are continually contextualised within the discourse semantic patterns in which they function. The next step is to contextualise the discourse semantic features of texts within the patterns of social contexts in which they function.

2.7.3 Relations between systems in discourse semantics, lexicogrammar, phonology and social contexts

Taking Text [1:1] as an exemplar, a text can be located within this framework of context variables, by identifying the selections made by each speaker from options in discourse systems, that are in turn realised by lexicogrammatical and phonological systems. Martin (1992) proposes discourse systems that realise settings of tenor, field and mode, including the systems of NEGOTIATION, IDEATION and IDENTIFICATION respectively. Selections in these discourse systems are in turn realised in selections from grammatical systems such as MOOD, TRANSITIVITY and THEME.

In terms of tenor, the relationship between the speakers of Text [1:1] is enacted by selections from the discourse system of NEGOTIATION, that are in turn realised by selections from the grammatical systems of MOOD, POLARITY, VOCATION and MODAL ASSESSMENT. This relationship is one of unequal status but close contact. The younger brother defers to his *kuta*, who in turn dominates the younger, the younger brother appealing to his sibling relationship with the Vocation and request, and his *kuta* responding with marked affect in both the negation and command.

In terms of field, the text represents an event within an activity sequence, realised through the discourse system of IDEATION, realised in turn in the grammatical systems of TRANSITIVITY and CIRCUMSTANTIATION. Two brothers are travelling across country, hunting as they go, and stop to camp for the night. The process at this step in the sequence is configured around the location where the younger brother will sleep, either together with his older brother, or apart in his own windbreak. As such it also constructs a fragment of a taxonomy of social activity, including the kinds of activities that brothers may be involved in, and the kinds of behaviour that are appropriate between them.

Mode is realised by the organisation of interpersonal and experiential meanings in the text, through the discourse system of IDENTIFICATION, and the grammatical systems of THEME and INFORMATION. The interpersonal mode variable is the potential for turn-taking, most generally between dialogue and monologue. Text [1:1] is a dialogue so the exchange is

initiated with a thematic Vocative *kuta* and speaker as Medium *ngayulu*. In the responding move, the negation *wiya* is thematic and the requested Place and Process are re-presented as New. The ideational mode variable lies between accompanying the field (action), and constituting it (reflection). In a narrative, for example, the text constitutes its own field; it is relatively independent of the context of speaking, but reflects on another context. The opposite is the case in Text [1:1], where language is ancillary to and dependent on the context of making camp for the night: it is an example of language in action and as such displays features of its dependence on the local context of speaking. For example, participants and places are referred to exophorically, as personal pronoun *ngayulu* 'I' and demonstratives *nyangangka* 'here', *nyaratja* 'yonder'. These patterns of linguistic realisation of field, tenor and mode are illustrated for Text [1:1] in Figure 2.27.

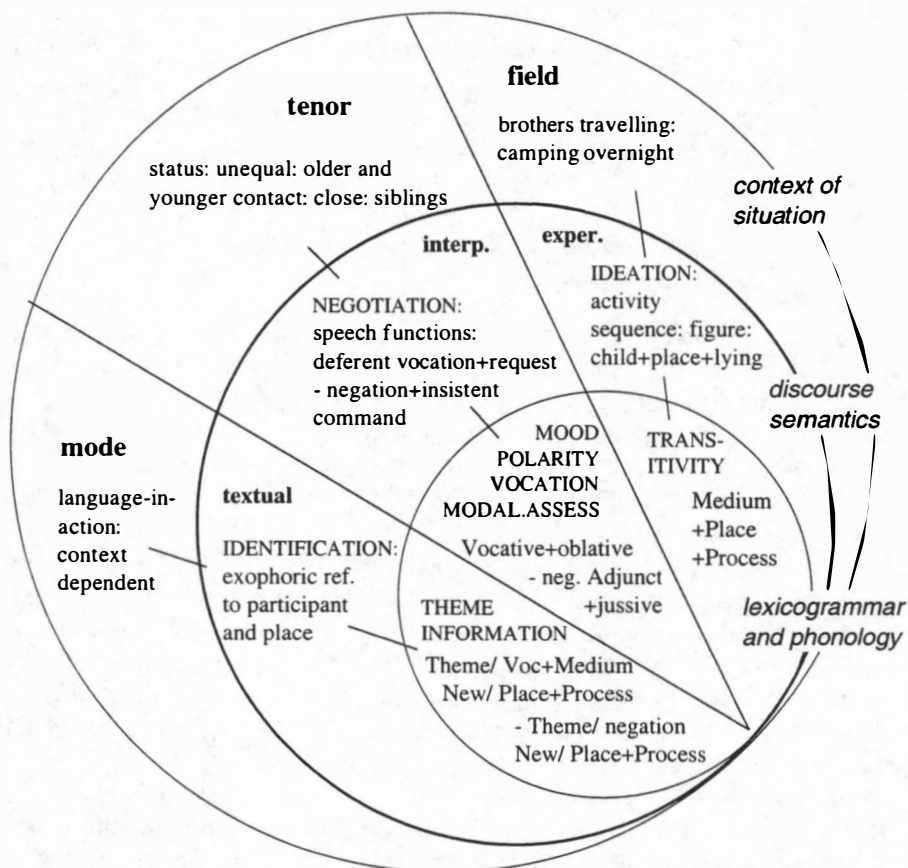


Figure 2.27: Metafunctional diversification of language in context

Variations in tenor, field and mode are realised in the semantic stratum as probabilistic selections of meanings in discourse. So for the fraternal register instantiated in Text [1:1], we could generalise about tendencies in selection of interpersonal, ideational and textual semantic features, such as negotiation of deference and domination, marked affect, shared roles in activity sequences such as hunting and camping, and implicitness of identification. These tendencies could be contrasted with those of an affinal register (e.g. between son and

father-in-law), that may include mutual deference, low affect, no sharing of roles, non-reciprocal exchange of goods, and more explicit identification.

2.8 Presentation of text examples

Throughout the survey, examples are generally presented and analysed at clause rank. In the examples, each verbal or nominal group is translated in the interlinear gloss as a corresponding English verbal group, nominal group or prepositional phrase. This means that morpheme rank grammatical items are glossed at the same level of abstraction as word rank lexical items, with natural English grammatical or lexical items that correspond to their functions in the context of the word group in which they are instantiated. Examples include functional correlations between suffixes on Western Desert nominal or verbal groups and English prepositions or auxiliary verbs. This consistently structural approach to glossing is designed to make explicit the realisational relationships between group-rank function structures and features in clause rank grammatical systems, that are our primary concern in this volume, allowing us to focus on these clause rank systems, and their deployment in discourse. Where the reader wishes to clarify the paradigmatic location of grammatical morphemes in a Western Desert transcription, the tables of morpheme and word rank features above provide a simple reference. (§2.6.3) Since interlinear glosses here are designed to make group-rank function structures explicit, structural relations between them at clause rank become equally explicit in the gloss of the clause as a whole that follows. This however is never a 'free translation' in the presentation here, rather its textual organisation and other features are shaped to accurately translate clause rank and discourse semantic features of the original Western Desert. This rank- and stratum-based approach to glossing also has the added advantages of presenting transcriptions of Western Desert clauses as more transparently meaningful to English-speaking readers, reducing some of the unnaturally exaggerated semantic distance between these languages that low-level labelling tends to produce.

This approach may differ in places from standard forms of interlinear glosses in formal language descriptions, in which each morpheme in a clause may be glossed individually, with an experiential translation of lexical items, and a paradigmatic label for grammatical items. In this tradition, examples may be presented as though the clause is a written sentence, with initial capital and full stops, followed by the word and morpheme rank interlinear gloss, followed by a free translation. So for example Text [1:1] may be written, glossed and translated in the formal descriptive tradition as follows.

[1:1ⁱ]

M *Kuta* *ngayulu* *nyanga-ngka* *ngari*.
 elder brother-ABS 1sg-NOM this-LOC lie-IMP
 Big brother, may I sleep here?

K *Wiya* *ngura nyaratja* *tjitji* *ma-ngari*.
 NEG place.there-ABS child-ABS ABL-lie-IMP
 No, sleep apart over there, child.

In this approach to glossing, paradigmatic options are not systematically distinguished from their structural realisations, so that syntagmatic items are labelled as paradigmatic features. As well as collapsing syntagmatic and paradigmatic perspectives within the gloss,

rank distinctions are also collapsed, with morpheme or word rank structural items translated or labelled in the order they occur, without explicit regard to the group-rank functions of reactances between items. These structural items tend to be construed as denoting rules of form rather than functional options, so that the label given to each morpheme does not tell the reader what the item means in the context of the structure, and this applies particularly to interpersonal meanings. Instead, the meaning of the structure must be notionally inferred from the free translation. What, for example, are the criteria for translating M as a question in example [1:1ⁱ], but K as a command, when both verbs have the same IMPerative form? Likewise what is the function of *kuta* in M? The ABSolute label suggests that it is the Range ('object') of the clause. On the other hand, both *ngura nyaratja* and *tjitji* are labelled ABSolute in K. Which is the Medium ('subject')? Only the 'free translation' tells us intuitively that the functions of *kuta* and *tjitji* are in fact Vocative, and *ngura nyaratja* is a Place not a Medium, despite its ABSolute label. Although both *nyanga-ngka* and *ngura nyaratja* refer to places in the context, yet only *nyanga-ngka* is labelled as LOCative. Of course the Medium ('subject') in K is implicitly presumed to be the addressee of the command; it is not an overt element of the structure here, but is an inherent feature of jussive imperative mood that the clause structure realises. However all these functions can only be inferred intuitively from the free translation; the morpheme-by-morpheme glossing does not make them explicit. These problems flow from the ascription of generalised paradigmatic labelling at morpheme rank to items that function as elements of group-rank structures in actual texts.

The presentation of text examples in the survey here focuses on functions rather than forms. Since there is more than one layer of meaning to a clause, there may be more than one way of presenting clause rank functions. In experiential analyses, transitivity functions of each word group are labelled below the interlinear gloss, in bold type title case, so that Text [1:1] would be labelled as follows in example [1:1ⁱⁱⁱ].



[1:1ⁱⁱⁱ]

M	<i>kuta</i>	<i>ngayulu</i>	<i>nyanga-ngka</i>	<i>ngari</i>
	elder brother	I	at here	lie-!
		Medium	Place	Process
K	<i>wiya</i>	<i>ngura nyaratja</i>	<i>tjitji</i>	<i>ma-ngari</i>
	no	yonder place	child	lie apart-!
		Place		Process

Each lexicogrammatical function at clause rank is glossed as an English group or phrase. For example, circumstantial functions such as Place are realised in Western Desert by a nominal group plus suffix *nyanga-ngka*, and are glossed in English as a prepositional phrase 'at here'. Likewise nominal groups in Western Desert are structured as Head^Modifier *ngura nyaratja*, and are glossed as English nominal groups structured as Modifier^Head 'yonder place'. (This Place is not inflected with a locative suffix, in the same fashion that demonstrative locations in English may or may not include a preposition, e.g. 'there/over there'). Processes in Western Desert are realised by a verb plus affix, such as a directional prefix plus verb *ma-ngari*, glossed as an English phrasal verb 'lie apart', or verb plus tense suffix *ngari-ku*, glossed as an English verbal group 'will lie'. This principle of glossing Western Desert tense suffixes as English auxiliary verbs is applied consistently, so that present tense is glossed as 'is lying', simple past as 'did lie', continuous past as 'was lying', habitual tense as 'does lie', and so on.

In most cases the sequence of group-rank elements in Western Desert is the reverse of the sequence in English groups and phrases, so that it is clear which item in the original group corresponds to each item in the English gloss. This applies to the sequence of both words and affixes. Generally the sequence in Western Desert groups is Head^Modifier, so it is interesting that the exception of directional prefix *ma-ngari* is translated as a preposition that is also exceptional in that it follows the verb in English phrasal verbs 'lie apart'. Because affixes are indicated with a dash, their function is apparent from the glosses, since they correspond to the group-rank functions of English items such as auxiliary verbs and prepositions. If there is any potential ambiguity this is explained in the accompanying discussion. Most importantly the functions of each structural item is set out in system networks and tables, which show both the function and the form of its structural realisation, so there is no need to repeatedly label each item in the examples.

Note that in the transitivity analysis in example [1:1ⁱⁱ], only the experiential functions are assigned functional labels. The interpersonal functions of Text [1:1] are presented as follows in example [1:1ⁱⁱⁱ].

[1:1 ⁱⁱⁱ]				
M	<i>kuta</i>	//	<i>ngayulu</i>	<i>nyanga-ngka ngari</i>
	elder brother	I	at here	lie-!
	Vocative			
	Big brother, may I sleep here?			
K	<i>wiya</i>	<i>ngura nyaratja</i>	//	<i>tjitji ma-ngari</i>
	no	yonder place	child	lie apart-!
	Adjunct		Vocative	
	No, over there child, sleep apart!			

In this perspective there is no need to provide structural labels for each item, if they do not have a role in the interpersonal functions of the clause. The exceptions are the verbs *ngari* and *ma-ngari*, which are labelled with an exclamation mark (rather than the abbreviation IMP), iconically indicating the function of their ending in realising imperative mood. Other interpersonal functions in the clause are indicated by the function labels Vocative and Adjunct below the item, and by the graphic symbols for tone contours, showing, for example, the low fall on the Vocative *kuta*, followed by a rising tone, indicating that this imperative clause realises a request, not a command. On the other hand the tone contours in K realise a forceful command. The specific meaning of these tone contours is discussed in more detail in Chapter 3.

The other advantage of indicating tone contours by these symbols is that they are placed above the item that corresponds to the Tonic foot, that is the foot that carries the main pitch movement, indicating that this item is functioning as the New element in each information unit. Boundaries between tone groups are indicated by a double slash //, but boundaries between feet need not be marked, because in most cases each foot correlates with a word. Textual functions can also be labelled as follows, including reference items, Theme, and New information. Reference functions are labelled with arrows, exophoric reference with a straight arrow, and endophoric reference with a backwards or forwards pointing arrow. Themes are underlined and New elements are in **bold type**, as in example [1:1^{iv}] below.

[1:1 ^{iv}]			
M	<u>kuta</u> <u>ngayulu</u>	nyanga-ngka	ngari
	elder brother I	at here	lie-!
K	<u>wiya</u> <u>ngura nyaratja</u>	tjitji	ma-ngari
	no yonder place	child	lie apart-!

Finally, the labelling of relations between clauses in text examples is either in terms of the relation between interactants, such as M for *malan* 'younger sibling' and K for *kuta* 'elder brother' in Text [1:1], or in terms of the logical relation between the clauses. These include numbers for paratactic clause complexes, and Greek lettering for hypotactic complexes. In addition, additive paratactic relations are indicated with +, and elaborating ones with = (enhancing relations are always hypotactic). These symbols are illustrated with the following example [1:3] from Chapter 1.

[1:3]	
1	<i>pula</i> <i>pararitja-kutu</i> <i>a-nu</i>
	they2 to a distant place did go
	They went to a distant place,
+2	<i>munu pula</i> <i>ma-antjakari-ngu</i>
	and they2 did camp away
	and they camped away for the night.
+3 δ	<i>munu pula</i> <i>ngarin-tjanu-ngku</i>
	and they2 after sleeping
	Then after sleeping,
γ	<i>pungku-la</i>
	striking
	hunting some more,
β	<i>antjakaringku-la</i>
	camping out
	and camping out again,
α	<i>wirkati-ngu</i>
	did finally arrive
	they finally arrived.

There are a few clause rank functions that cannot be directly translated into English. This includes personal pronouns that have the option of dual or plural number, illustrated in the example above with the dual non-interactant *pula* glossed as 'they2'. This could potentially have been glossed as the more familiar 'those two', except that this also translates a nominal group such as *pala kutjara*, so the numbering convention has been used instead for distinguishing dual and plural pronouns. This does not apply to singular pronouns which have direct English equivalents such as 'I' or 'me'. Although there is no pronominal gender distinction in Western Desert, singular non-interactants are glossed according to their gender in the text, or if this is not clear, as 's/he'. Note also the glosses of:

- i) the verbs *antjakari-* and *wirkati-* as process plus circumstance 'camp away for the night' and 'finally arrive' respectively,

- ii) the inflected nominal *pararitja-kutu* as a prepositional phrase 'to a distant place',
- iii) non-finite processes such as *pungku-la* as realis (i.e. perfective) 'killing' and of the completive *ngarin-tjanu* as perfective verb plus temporal conjunction 'after sleeping'.

In all cases, such glossing is based on consistent principles of translating the functions of Western Desert groups as functions of English groups/phrases. Text [1:3] is a good example of the effect of these principles for making the glosses meaningful, both in terms of the language and linguistic description.

3 *Textual resources*

3.1 Introduction

The point of departure for the survey is with the textual resources of identification, theme and information. As we discussed in §2.3 above, a functional grammatics assumes that language is organised stratally to realise meanings in social contexts. So, the approach taken here to the textual organisation of Western Desert language is from above, from the perspective of social discourse. From this point of view, the wave-particle structural complementarity discussed for phonological ranks in §2.5 above, also operates in the content plane to systematically phase strands of meaning together to create text that is coherent in its context. The spoken texts of Western Desert have properties of dynamic textual organisation, that vary according to their contexts of speaking. This means that the textual organisation of different text types can be systematically related to the context types they realise, and studied in comparison with each other. One of the most striking features of the language to emerge from such comparative analyses is the coherent patterns of semantic relations each text constructs dynamically between itself and its contexts. A text presents its context as a flow of meaningful information, that both construes and enacts its context. Halliday (1994b) describes the informational dimension of logogenesis as follows:

Any piece of discourse unfolds as a flow of meaning, a complex interplay of the predictable and unpredictable. From the standpoint of the *instance*, this means a construction of “given” and “new” in relation to the text itself and its environment (“context of situation”). From the standpoint of the *system*, it means the overall pattern of information and redundancy.

The textual resources of the Western Desert language weave construals and enactments together into series of messages, and simultaneously relate each message to its context, on two levels: the context of the situation in which it is spoken and the context of the messages that have preceded it. Internally, each message is organised in turn by the lexicogrammar of the clause and the phonology of the tone group(s) on which it is spoken. It is related to its context within the situation or within the text, by means of three sets of textual resources, the discourse system of IDENTIFICATION, and the grammatical systems of THEME and INFORMATION.

IDENTIFICATION dynamically relates each message to its field, either by presenting the identities of people, things and places, or by indicating how and where to recover their identities from the context. THEME grounds each message in its interactional and representational context by presenting certain textual, interpersonal and experiential elements as starting points or Themes, from which to present other elements as Rheme. INFORMATION

organises these elements into units of information, which are realised as discrete tone groups, including at least an element that is New information, and usually also an element that is Given, i.e. recoverable in the context. The New element is realised by the tonic focus, i.e. the foot carrying the major pitch movement of the tone group, and the default structure of the information unit are pre-tonic Given, culminating in tonic New.

The structures in which these textual resources are realised are periodic, and independently variable. They are carried on waves of rhythm and tonicity, described in §2.5 above, phasing construals and enactments in and out of focus, continually backgrounding and foregrounding identities, judgements and other elements within each information unit and message, and adjusting the prominence of messages up and down. Of these resources, I will make IDENTIFICATION the starting point for the chapter:

- i) because it functions at the level of the whole text, linking elements of messages to the situation, or to those already gone;
- ii) because it illustrates the semantic contrasts between varying roles of language in its contexts, from accompanying to constituting fields of action; and
- iii) because it is perhaps the most familiar set of textual resources in our commonsense experience of language, consisting largely of a range of overt personal pronouns and demonstratives most of which are directly translatable between Western Desert, the language described, and English, the language of description.

I will then present options for the organisation and prominence of messages in THEME, and finally options for distribution and focus of INFORMATION in messages.

3.2 IDENTIFICATION

Resources in the Western Desert system of IDENTIFICATION serve to relate messages to their context (of the situation or of the text), by presenting the identities of people, things and places lexically, or indicating how their identities can be recovered from the context. The latter can be indicated in two general ways: by pointing at the location or direction in which an identity can be recovered (demonstrative reference), or by indicating the role of the element in the interaction, as speaker, addressee or non-interactant (personal).¹ The realisation of these resources is within the (pro)nominal groups in each clause, but their functional domain is inter-clausal, and potentially the text as a whole.

Martin (1992:948–101) describes these identifying functions in terms of ‘phoricity’. A phoric realisation of an element presumes its identity, in contrast to non-phoric realisations that initially present an identity. In English this is the functional contrast realised, for example, by indefinite/definite demonstrative articles functioning as Deictic in a nominal group: *a* presents a single entity while *the* presumes it, with various options for plural entities (see Halliday 1994a:313). In the Western Desert this contrast is between non-phoric nominal groups that initially present identities without other reference, and phoric reference resources that presume them; number is singular, dual or plural for personal pronouns and is typically unmarked in demonstratives, but may be marked as plural if required.

¹ Comparative reference is not a significant motif in the Western Desert language, in contrast to English.

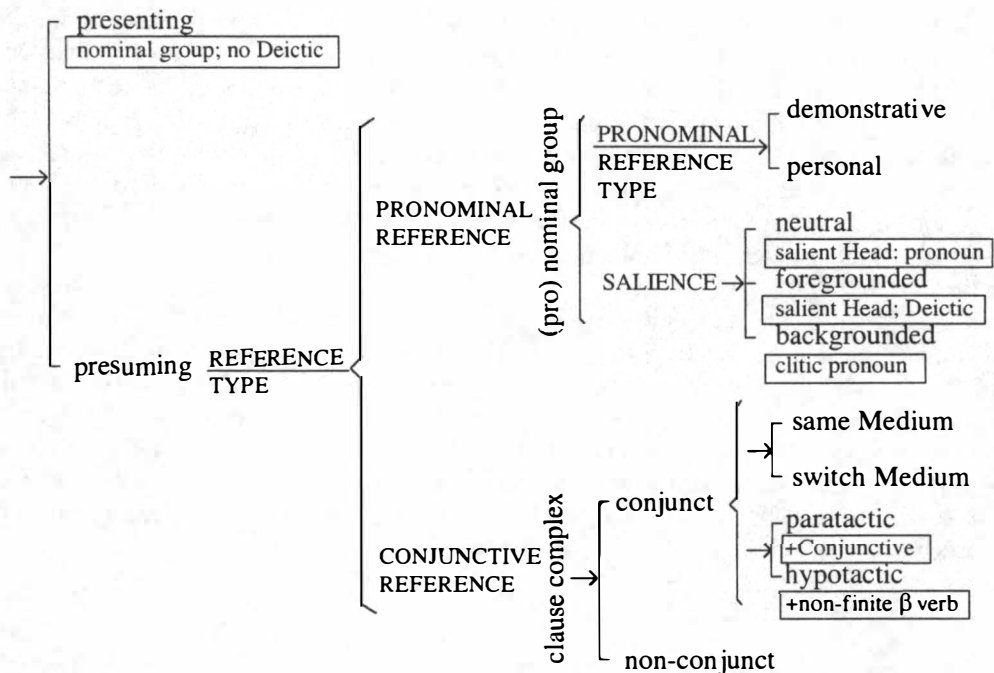
3.2.1 Overview of reference resources

In Western Desert, phoric reference items include:

- i) phonologically salient demonstrative and personal pronouns that can function as Head of a nominal group, e.g. *tjana nyinanyi* 'they [Head] are sitting', or as a Deictic, e.g. *piti palatja* 'that [Deictic] hole [Head]';
- ii) clitic forms that background presumed identities, e.g. *ngurangka-ya nyinanyi* 'in camp they're sitting'. (Note that clitic elements differ from affixes, as clitics realise distinct clause-rank functions, e.g. *-ya* 'they', that can alternatively be realised by salient elements, e.g. *tjana* 'they', whereas the function of affixes is to indicate the clause-rank function of the group they are affixed to.)

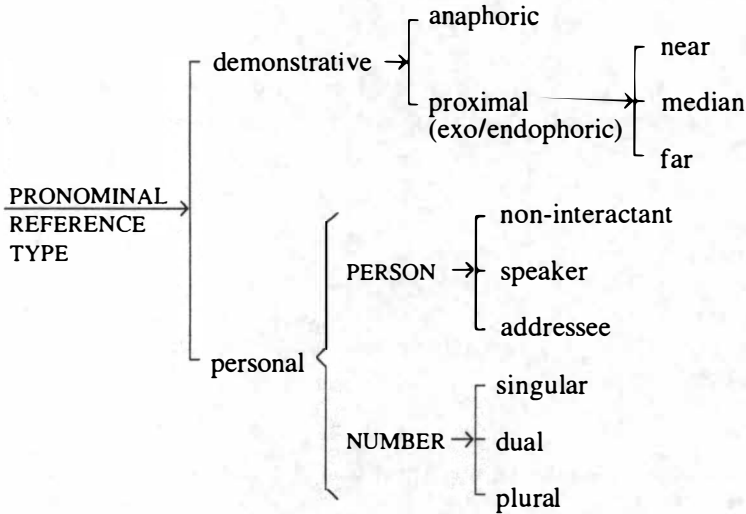
In any text, identities of people, things and places are realised more by phoric than non-phoric means, more so the more the text is dependent on its context of situation. I will use the term REFERENCE here to cover the set of phoric resources for presuming identities.

While personal and demonstrative reference items show the listener how to identify elements in the context, there is one more significant resource for identification that is used simultaneously in these texts—conjunctive reference (also known as 'switch reference'). Conjunctive reference operates between adjacent clauses, to indicate whether the identity of the clause Medium is the same or different from the preceding one. Between finite clauses, additive conjunctions identify the Medium as either the same *munu*, or switched *ka*. Between finite and dependent non-finite clauses, the same reference options are realised by the suffix of the non-finite verb. The general options for IDENTIFICATION are set out in Systems 3.1 and 3.2. These options are exemplified and tabulated in the following sections on personal and demonstrative reference.



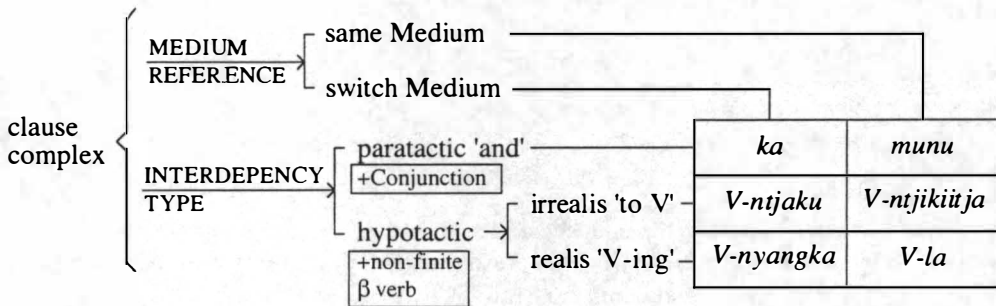
System 3.1: General options in IDENTIFICATION

Note that in System 3.1 the entry condition for the system of PRONOMINAL REFERENCE is a (pro)nominal group, and that for CONJUNCTIVE REFERENCE is a clause complex. System 3.2 below gives more detail in pronominal reference type, and structural realisations are specified in the §3.2.1–3.2.2 below.



System 3.2: General options in PRONOMINAL REFERENCE TYPE

The system of CONJUNCTIVE REFERENCE is shown in System 3.3 below. Structural realisations for same and switch reference are shown in boxes to the right.



System 3.3: Options in CONJUNCTIVE REFERENCE

In the Western Desert reference system we can see significant differences, as well as likenesses to reference in English. One difference is the option for salient or clitic versions for many items. Clitic items enable another salient element (to which the clitic is suffixed) to become the unmarked Theme of a clause, serving a similar function to that of passive voice in English described by Halliday (1994a:169). Secondly there is a specifically anaphoric demonstrative *panya*, specifying recoverability in preceding discourse, corresponding to the anaphoric function of 'the' but not its other exophoric and homophoric functions. Thirdly there are three choices of relative proximity in demonstratives, corresponding to the archaic and dialectal English system of 'this/ here', 'that/ there' or 'yon/ yonder', although Western Desert uses a single item for each value. As with English, proximal demonstratives may point

to either exophoric or endophoric referents, construing text metaphorically as 'discursive space' in which referents are near or far.

All of these functions appear across the continuum between language accompanying and constituting field, although proximal demonstratives and interactant personals (I/you) more frequently accompany field (i.e. pointing to places in the situation), and non-interactant personals and anaphoric demonstratives more frequently constitute it. In the first two field-accompanying Texts [3:2] and [3:3] below, reference is largely exophoric to the situation, although there are references that are endophoric, recoverable from the preceding discourse. Endophoric reference becomes more pronounced in the field-constituting Texts, [3:4] and [3:5].

3.2.1.1 *Personal reference*

Structural realisations of features in personal reference are shown in the following tables. As discussed in §2.6.4.2 above, personal pronoun paradigms differ for imperative and indicative clauses. Full and clitic forms for active pronouns are re-presented here as Table 3.1.

Table 3.1: Active pronouns realising options in imperative and indicative clauses

PERSON	NUMBER								
	single			dual			plural		
	full	clitic	gloss	full	clitic	gloss	full	clitic	gloss
imperative clauses									
addressee	<i>nyuntu</i>	∅	'you'	<i>nyupali</i>	<i>-pula</i>	'you2'	<i>nyura</i>	<i>-ya</i>	'you3'
speaker	<i>ngayulu</i>	<i>-na</i>	'I'	<i>ngali</i>	<i>-li</i>	'we2'	<i>nganana</i>	<i>-la</i>	'we3'
non-inter.	<i>paluru</i>	–	's/he/it'	<i>paluru pula</i>	–	'they2'	<i>paluru tjana</i>	–	'they3'
indicative clauses									
non-inter.	<i>paluru</i>	∅	's/he/it'	<i>paluru pula</i>	<i>-pula</i>	'they2'	<i>paluru tjana</i>	<i>-ya</i>	'they3'
speaker	<i>ngayulu</i>	<i>-na</i>	'I'	<i>ngali</i>	<i>-li</i>	'we2'	<i>nganana</i>	<i>-la</i>	'we3'
addressee	<i>nyuntu</i>	<i>-n</i>	'you'	<i>nyupali</i>	–	'you2'	<i>nyura</i>	–	'you3'

While active pronouns are the uninflected form, neutral, genitive and locative inflections are realised by suffixes on the pronoun stem (usually the first two syllables). These inflections are consistent across person and number categories (with some exceptions) as follows:

- i) Range is generally realised by *-nya*, e.g. *ngayu-nya* 'me', *nganana-nya* 'us3', *nyuntu-nya* 'you', *nyupali-nya* 'you2', etc.
- ii) Location, Means, Accompaniment and Receiver are realised by *-la*, e.g. *palu-la* 'to him', *nganana-la* 'with us'.
- iii) Cause, Phenomenon and possessive Deictic are realised by *-mpa*, e.g. *nyuntu-mpa* 'your', with the exception of *ngayu-ku* 'my'.

Neutral and genitive clitic forms are given in Table 3.2

Table 3.2: Clitic forms for neutral and genitive pronouns

	single	dual		plural	
	neutral	neutral	genitive	neutral	genitive
speaker	-ni 'me'	-linya 'us2'	-limpa 'our2'	-lanya 'us3'	-lampa 'our3'
addressee	-nta 'you'	—	—	—	—

As mentioned in §2.6.4.2 above, the word-rank 'inclusive/ exclusive' distinction in dual or plural pronouns that is often claimed to be culturally significant in Australian and other languages is scarcely relevant in the Western Desert system, because it is a group-rank, not a word-rank system. For example *ngali* 'we2' on its own means either 'speaker+addressee', or 'speaker+non-interactant', but these options can be made explicit simply by expanding with another item, as *nyuntu ngali* or *paluru ngali* respectively. Again it is the pronoun indicating person, number and clause function that is the group final Deictic, e.g. *nyuntu* [Head] *ngali* [Deictic].

The non-interactant may also be named *Jimmy-nya ngali* 'Jimmy and I'. The same potential applies to any dual or plural person, e.g. *paluru nyupali* 'you and s/he', *Mitaiki-nya tjana* 'Mitaiki and them'. The latter gloss is not quite accurate since *Mitaiki-nya* is actually construed as part of, not additional to, the non-interactant group *tjana*, and so is translated in Aboriginal English as 'Mitaiki mob'. The logico-semantic relation in Western Desert pronominal groups is elaborating, in contrast to the additive relation in English. The complexing potential is also recursive, e.g. *Sammy-nya Ngumula-nya nganana* 'Sammy, Ngumula (+others) and I', *Sammy-nya Ngumula-nya pula* 'Sammy and Ngumula', *Sammy-nya Ngumula-nya Kunmanara-nya tjana* 'Sammy, Ngumula and Kunmanara'. From the perspective of group-rank function, these groups consist of two functional elements, Head and Deictic, with the Head realised at the next rank down by a word series (see §6.5.4 on word-rank logical relations).

While the options for 'inclusive' and 'exclusive' persons are unrestricted, what is culturally significant is the option of dual or plural person, but only if considered in conjunction with other features of the socio-semantic system as a whole. This choice is grounded in the nature of interaction between 'you', 'I' and 'them'; in the strongly positional system of kinship relations realised, for example, in the system of kin terms, either as Vocative *nguntju* 'mother!' or with possessive Deictic *ngayuku nguntju* 'my mother'; in the kinship pair suffix, e.g., *kangkuru-rara* 'sister-pair', *kuri-rara* 'spouse-pair', or the one-word term for 'parents' *mama-nguntju* (literally 'father-mother'); and in the interpersonal choices prescribed for various kin relations such as *tjalpawangkantja*. In other words the category 'two people' is interpersonally significant enough to distinguish it in the personal reference system from a 'group of people', a social category that is carried over into the three term NUMERATION system of *kutju* 'one', *kutjara* (literally 'pair-of-ones') 'two' and *tjuta* 'many/plural'.

3.2.1.2 Demonstrative reference

Table 3.3: Demonstrative reference options

		neutral	foreground	background
Medium/ Head			(e.g.)	
anaphoric	'that'	<i>panya(tja)</i>	<i>panya paluru</i>	<i>-lta</i>
proximal	'this/here'	<i>nyangatja</i>	<i>nyanga paluru</i>	<i>nyanga</i>
(exo/ endo)	'that/there'	<i>palatja</i>	<i>pala palu-la</i>	<i>pala</i>
	'that/yonder'	<i>nyaratja</i>	<i>nyaratja-lta</i>	<i>nyara</i>

Demonstratives may be inflected for experiential functions other than Medium. They are most commonly inflected when they are functioning as Deictics, e.g. *wati nyanga-ku ngura* 'the home of **this** man'. Infrequently they are also inflected as plural, e.g. *wati nyanga-n-pa kata pawuntji pawuntji* 'these men's heads are really cooking' (i.e. from working in the hot sun). Demonstrative inflections are identical to those for common nominals, i.e. they construe their referents as members of classes of entities, but in this case very general classes indeed of either 'this', 'that' or 'yon'. The range of inflections for common nominal functions are given in the context of TRANSITIVITY and CIRCUMSTANTIATION in Chapter 5.

More often, when they are functioning as Range or Circumstance, demonstratives are the uninflected Head of a nominal group, and the inflection is carried by a third person pronoun as Deictic, e.g. Location *pala palu-la* 'at that there', Range *panya palu-nya nyangu* '(he) saw **that one** (we mentioned)'. This may also be the case with a nominal Head and demonstrative Deictic, e.g. *wati panya palu-mpa ngura* 'the home of **that** man (we mentioned)'.²

The clitic anaphoric demonstrative *-lta* may refer to participants, e.g. *nyangatja-lta* 'this (thing) I mentioned', or to whole messages 'this process I mentioned'. This type of text reference is part of the meaning of the English internal conjunction 'at that...', with which I have glossed the meaning of *-lta* in example [3:1] below.³

- [3:1] *government paluru tjaintjari-nyangka*
that government having changed
The government having changed,

tjana starta-ra community-nya money -lta ngaly-u-ngu
they₃ starting to the community money 'at that' did give
they started at that to give the money to the communities.

² In IAD (1992:94–95) the background forms *nyanga*, *pala*, *nyara* are labelled as "demonstratives" and glossed as group-rank Deictics, e.g. "this", but the neutral forms *nyangatja*, *palatja*, *nyaratja* are labelled differently as "demonstrative adverbs" and glossed as clause-rank participants or circumstances "this here, this one here. May indicate a person, place or thing". However in practice either form may function in either role at group or clause rank, as we have seen in text [3:1]; the function of adding *-tja* is textual not experiential. (IAD adds the cultural information that "it is polite to refer to a person who is present using *nyangatja* rather than *paluru* he/she or their name". However this is also true of English: polite 'Is this lady your friend?' or less polite 'Is she your friend?'.) Eckert and Hudson (1988:96) also attempt to ascribe an experiential meaning to this textual contrast. "The *-tja* ending demonstratives are used where the person or thing that is being referred to is either obvious to the one being spoken to or is expected to become immediately obvious. It is referring to something that is quite evident or at least would be evident if the one being addressed were only to look", and so on. See Appendix 2 for a critique of experiential glossing of textual functions.

³ Goddard (1985) glosses *-lta* as a temporal conjunction 'and then'. However, although it interacts with clause sequencing, its function is textual not ideational.

3.2.2 Text examples

Contrasts in the role of language between accompanying and constituting social action are brought out strongly in the text examples that follow. Text [3:2] is an exchange between three people, one of whom is digging in the earth looking for the signs of *tjala* ‘honey ant’ nests, while the other two direct his work. Text [3:3] is a dialogue between two people, one of whom has seen something remarkable and wants the other to come and look. Text [3:4] is a personal recount of one stage of the speaker’s community’s campaign for land rights. Text [3:5] is from a traditional Western Desert narrative recounting the people’s original acquisition of fire.

All four texts unfold as activity sequences, but while the field of Texts [3:2] and [3:3] is the activity going on in the context of situation, Texts [3:4] and [3:5] must create their own fields, their own virtual activity sequences. In each step of these activity sequences are one or more participants and locations, and the ways in which these elements are presented render each text strongly coherent with respect to its field. That is, the coherence between the text and the context it accompanies or constitutes depends very much on how elements of this context are identified in each step of the text. What is striking is that the most frequent means, in all texts, for identifying people, things and places is not by their names but by personal and demonstrative reference items.

Two general options in PHORICITY are presented in the texts with the symbols used by Halliday (1994a:317) as:

exophoric (referring to the context of situation)



endophoric (referring to the context of the text)



Where the identity is an overt reference item, it is surrounded by a box, with the phoricity arrow above. Where the identity is implicit, it is given in brackets in the gloss of the process, e.g. ‘(you) throw across-!’, and by a phoricity arrow above the process without a box. English glosses are provided at group rank, as in Chapters 1 and 2. Clause-rank glosses are given only where the group-rank glosses are insufficient for an English speaker to understand, in order not to clutter the presentation, and to keep the translation as close as possible to the original.

3.2.2.1 Language accompanying field

Text [3:2] Digging for *tjala* ‘honey ants’

The genre of the first Text [3:2] presented below is ‘instructional’. It is related to procedures but unfolds in the context of the activity in contrast to a pre-determined sequence. The interactants in Text [3:2] are the man D who is digging, E who is his classificatory mother, and Y who is E’s adult daughter. E and Y are adept at gathering *tjala*, an ant species that stores honey in the transparent distended abdomens of specialised individuals, within small chambers of their nests one metre or more deep in the cool red earth. To gather *tjala* one must first identify the tiny holes of nests under certain mulga acacia trees, and then follow their many long twisting tunnels down to find the well-hidden honey chambers. When Text [3:2] begins, E and Y are resting after beginning to excavate a nest, and D, who is a relative novice at *tjala*, is continuing the excavation under their instruction. He begins in D1 by asking if he has found a significant tunnel with *nyangatja nyaa*? ‘what’s this?’.

- D1 *nyangatja nyaa*
this what?
What is this?
- Y1 *wiya nyanga kura kura*
no this no good
No, this is no good.
- E1 *piruku wati-wani nyangatja ... uwa alatjitu piti panya palatja*
more (you) throw across-! here yes exactly the hole there
Throw (the earth) again over here! Yes exactly, that hole there.
- Y2 *paku-ri-ngu ala palatja*
(he) has become tired 'see that'
He's getting tired, see!
- E2 *palatja kura-riya' nya-wa ... nyangatja wiru-nya*
that is getting bad (you) look-! this (is) good
That's no good, look! This is good.
- Y3 *ala pala' ... pala munkarra waakari-nyi munkarra*
'see that' ... there on far side (he) is working on far side
See! There on the other side he's working, on the other side (of the hole).
- E3 *nyaratja -lta nyina-nyi paluru ... nyara nyina-nyi nya-wa*
at that yonder is sitting it yonder (it) is sitting (you) look-!
There it is, over there. It's over there, look!
- Y4 *wiya nya-wau*
no (you) look-!
No, look!
- E4 *nyaratja nyina-nyi ... munkarra ma-tjawa*
yonder (it) is sitting other side (you) dig away-!
It's over there. On the other side, dig over there.
- nyangatja katja tjinguru nyara-ngka nyina-nyi uril-ta*
here son maybe at yonder (it) is sitting on the outside
Here, son! It may be over there, on the outside.

- D2 *nyangatja*
 this?
 This?
- E5 *uwa ala palatja pala palu-la arka-la*
 yes 'see that' at that there (you) try-!
 Yes, see! Try that there!
- Y5 *ala pala'*
 'see that'?
 See!
- D3 *muntauwa*
 aha!
 I see!

3.2.2.1a Reference resources used in Text [3:2]

Demonstrative reference items used in Text [3:2] include three that express relative proximity of things or places *nyanga(tja)* 'this/ here', *pala(tja)* 'that/ there', *nyara(tja)* 'yon/ yonder', as well as the anaphoric item *panya* 'the/ that'. One personal pronoun is also used here, *paluru* 's/he/ it'. All of these items can function as Head or Deictic in a nominal group. Many personal pronouns also have clitic equivalents. By suffixing these clitic items to a salient word, the identity they refer to is backgrounded. There is also a demonstrative clitic *-lta* which has a similar anaphoric function as *panya*.

The limiting case of this backgrounding function is the clitic form of the singular addressee in imperative clauses 'you', and non-interactant in indicative clauses 's/he/it', both realised as zero (\emptyset).⁴ In other words, these participants need not be referred to explicitly, but may be **implicitly presumed** from the context, either of the situation or the preceding text; their identities are construed as recoverable in the background of unfolding action, and need not be continually restated. Identities can also be foregrounded by combining reference and lexical items, e.g. *piti panya palatja* 'that hole there', *nyaratja-lta* 'that-yonder', *pala palu-la* 'that there'.

These examples also illustrate differing inflections for reference items depending on their experiential function in the clause. The unmarked experiential function is Medium, e.g. *nyangatja wiru* 'this is good', *nyinanyi paluru* 'it is sitting', but other functions in Text [3:2] include Location, marked with *-ngka* for demonstratives *nyara-ngka nyinanyi* 'sitting over there', and *-la* for pronouns *pala palu-la arkala* 'try that there'.

Text [3:2] bristles with exophoric reference. Indeed it is through reference items that most of the experiential meanings are realised. Since the **genre** is instructional, much of the reference is to the implicit Medium of commands, including commands to 'throw (soil)' *wati-wani* in E1, 'look' *nyawa* in E2, E3 and Y4, 'dig' *tjawa* in E4, and 'try' *arkala* in E5.

⁴ The implicit presumption of participants could be labelled 'ellipsis', but I will prefer to label it simply as a 'clitic' option for personal reference, since it serves the same backgrounding function as overt clitic options for other personal pronouns.

However, since the **mode** is accompanying the context, almost all the identification is exophoric to things and places in the situation, and to the person D in indicative as well as imperative clauses. D is the implicit Medium of, in Y2, *pakuringu* '(he) has become tired' and Y3 *munkarra waakarinyi* '(he) is working on the other side'. These two statements are addressed to E, and D is presumed as a non-interactant. Things and places are presumed in all the other clauses, either implicitly or by demonstratives.

Spatial demonstratives in the text refer to:

- i) 'things', as in D1 *nyangatja nyaa?* 'what's this (thing)?', and Y1 *nyanga kura kura* 'this (thing) is no good'. The 'thing' presumed in each of these clauses is a tiny hole *piti*, that is 'good' if it indicates a tunnel leading to the honey chamber;
- ii) 'places' such as E1 *wati-wani nyangatja* 'throw it across this (place)'.

While things and places may have the same realisation, the type of entity, as well as its identity, is apparent in the context. However the meaning of 'place' can also be made explicit with a locative suffix, as in E4 *nyara-ngka nyinanyi* 'sitting in yonder place'.

Each of the demonstratives also has a more or less textually prominent option, e.g. *nyangatja* or simply *nyanga* respectively. As discussed earlier, both options in prominence may function as either:

- i) Head of a nominal group, either alone (most examples in Text [3:2]) or modified with a Deictic, e.g. E5 *pala* [Head] *palu-la* [Deictic] 'that place there' and E2 *nyaratja* [Head] *-lta* [Deictic] 'that place yonder'.
- ii) Deictic in a nominal group, e.g. E1 *piti* [Head] *panya* [anaph. Deictic] *palatja* [exoph. Deictic] 'the hole there'.

Things are also presumed by personal reference:

- i) explicitly in E3 *nyaratja-lta nyinanyi paluru* 'that place yonder it resides';
- ii) implicitly in E3 *nyara nyinanyi*, E4 *nyaratja nyinanyi* and E5 *nyara-ngka nyinanyi* 'yonder (it) is sitting'.

As with the demonstratives, the 'thing' presumed in each of these clauses is the hole *piti* that D is searching for.

Least frequent in this field-accompanying mode are endophoric references, including:

- E1 *piti* [Head] *panya* [anaph. Deictic] *palatja* [exoph. Deictic] 'the hole (I mentioned) there',
- E5 *pala* [Head] *palu-la* [anaph. Deictic] 'at the place (I mentioned) there'.

Note that the function of *paluru* 's/he/ it' in E3 is clearly personal as Head, whereas in E5 it functions as a Deictic, inflected for location as *palu-la* 'at that'. Its function in this context approaches that of the anaphoric demonstrative, but employed to identify the proximal demonstrative *pala* more specifically as 'that there'.

The only experiential elements in the text that are not identified by reference are generally those that can not be, including:

- i) qualities like *kura* 'bad', *wiru* 'good', *piruku* 'again/ more';
- ii) processes *wati-wani* 'throw across', *nyawa* 'see', *ma-tjawa* 'dig away' *waakari* 'working', *nyina* 'sitting/ being', *arka* 'try'; and
- iii) location *munkarra* 'far side'.

- 5 *piti-ngka* -ni *nguwanpa* *tjarpa-tju-nu*
 into a burrow me nearly did drag in
 It nearly dragged me into the burrow!
- 6 *pulka mulapa*
 (it's) really big
 It's really huge!

3.2.2.1b Reference resources used in Text [3:3]

The reference resources employed in this exchange are all backgrounded personal pronouns identifying interactants, as either Medium or Range of the clause. For addressees the clitic options differ for these transitivity roles in imperative and indicative clauses. In imperatives the backgrounded addressee is implicit Medium and cannot be Range (as in English). In indicative clauses the clitic Medium addressee is *-n*, and the clitic Range addressee *-nta*.

In Text [3:2], almost all the identities presumed were non-interactants, with the exception of imperative clauses addressed to D as implicit Medium. In Text [3:3] the opposite is the case. Here it is the interactants who are the main identities, not only as implicit Medium of imperative clauses, but as Medium and/or Range of:

- i) yes-no questions (M2) *kangkuru watja-lku -na -nta* 'sister, shall I tell you?',
- ii) element questions (K1) *nyaa -n nyangu* 'what did you see?', (K3) *nyaa -n wangkanyi* 'what are you saying?',
- iii) statements (M5) *piti-ngka -ni nguwanpa tjarpatjunu* 'into the burrow it nearly dragged me'.

The field of Text [3:2] was about locations and the processes of digging, working and trying, so the reference was mostly demonstrative except for the implicit addressee of imperatives. In contrast, the field constructed in Text [3:3] is about the interactants, and about the interaction itself 'shall I tell you?', 'what are you saying?', 'tell me quickly!', so the reference is all personal and exophoric. However in M4-6 the field shifts out of the situation to another one, a little story, and the reference becomes more endophoric. The Medium is first presented nominally in M4 *kuniya pulka alatjitu* and is then implicitly presumed in M5 and 6. The only exophoric reference is to the speaker M as *-ni* 'me'.

So while reference to the interactants 'you' and 'I' is inherently exophoric, since these are the entities that constitute the interactional context of speaking, reference to non-interactants is potentially endophoric; they can be participants in either the situation or the text. When reference is to the text, it occasionally refers 'forwards' to an identity yet to be presented (cataphoric reference), but in Western Desert it is usually referring 'backwards' to a context established in an earlier message (anaphoric reference).

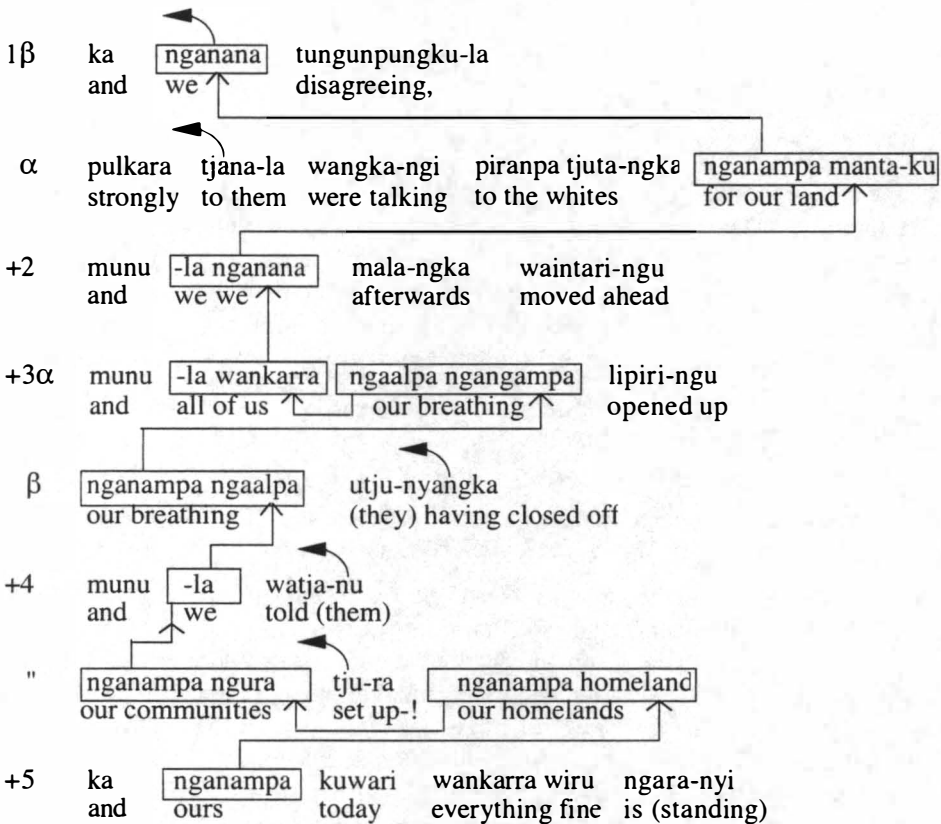
An anaphoric relation of this kind creates what we are calling cohesion. Presented with one of these words, the listener has to look elsewhere for its interpretation; and if he has to look back to something that has been said before, this has the effect of linking the two passages into a coherent unity. They become part of a single text (Halliday 1994a:312).

Although personal reference to interactants is inherently exophoric, at the same time it has a similar anaphoric potential as third person reference. Thus 'me' in M5 *pitingka-ni nguwanpa tjarpajunu* 'it nearly dragged **me** into a burrow', is both an exophoric reference to the speaker and an anaphoric reference to 'I' in M2 *kangkuru watjalku-na-nta* 'sister, shall **I** tell you?'. Again 'you' in M2 *watjalku-na-nta* is exophoric to the addressee, as well as anaphoric to both *kangkuru* and the implicit 'you' of imperative M1 *wanyu pakara pitja* 'please, (you) get up and come!'.

This dual reference has the effect of making a text, in which the interactants are also participants in the activity sequence, strongly cohesive; when we are talking about ourselves, there is little risk of ambiguity.

3.2.2.2 Language constituting field

Text [3:4] Talking strongly for our land



Text [3:4] is about a communal political struggle for recognition of the community's land ownership, so the participants are both presented and presumed as *nganana* 'we', and their land is both presented and presumed by possessive reference as *nganampa* 'our', either as Deictic or Head. The background to this text is that the state government of South Australia had offered the Pitjantjatjara and their neighbours a leasehold title to the Aboriginal Reserve that covered only part of their lands. The speaker here uses the metaphor of *nganampa ngaalpa utju-nyangka* 'narrowing our breath', i.e. 'suffocating us' to describe this

proposal, and *ngaalya nganampa lipiri-ngu* 'our breath **widened**' to describe their successful campaign to win freehold title to a much larger area of their lands.

In Text [3:4] anaphoric reference to non-interactants is presented with arrows as in Texts [3:2] and [3:3], but the strongly cohesive anaphoric links between *nganana* and *nganampa* are tracked as a continuous chain of reference from first to last mention. *Nganampa* functions as a Deictic in *nganampa manta* 'our land' and *ngaalya nganampa* 'our breathing', but also as Head as in +5 '(everything of) ours'. Note also that possessive Deictics may come either before or after the Head.

The clause-rank translation of Text [3:4] is as follows:

- 1β So disagreeing with them,
 α we were talking strongly to them, to the whites, for our land.
 +2 And after that we moved ahead with land rights.
 +3α So for all of us it was as if our breath opened up,
 β since they had closed off our breath.
 +4 Then we told them, "Build our communities, our homelands!"
 +5 So today everything is fine.

3.2.2.2a Reference resources used in Text [3:4]

The potential for dual exophoric and anaphoric reference of personal pronouns is taken advantage of in a personal recount such as Text [3:4], to create a text that coheres strongly to both the interactional context of speaking and the virtual field of action it evokes. In addition to personal reference, conjunctive reference also plays a significant role in Text [3:4], creating an activity sequence as a logical series, at the same time as it tracks the identity of the Medium in each step of the sequence. This is achieved through both paratactic addition with same Medium *munu* or switch Medium *ka*, as well as hypotactic enhancement, as follows:

- i) SAME *nganana tungunpungku-la...wangkangi*
 'we disagreeing...**same Medium** were talking'
 ii) SWITCH *ngaalya nganampa lipiringu...utju-nyangka*
 'our breathing widened...**different Medium** having narrowed it'.

One effect of the reference chain in Text [3:4] is to embed the activity sequence in a powerful sense of communal solidarity, both between *nganana* as the protagonists, and between *nganana* and our land, our breath, our communities and ours (in general). This identity is both presented and presumed as a personal pronoun, from its first mention in 1β, and then again in each clause, sometimes twice. However, conjunctive reference also plays a part to distinguish this identity from others. For example, the extract is introduced in 1β, with the SWITCH conjunctive *ka*, signalling that the Medium will be different from the previous clauses. Then the SAME Medium suffix on the dependent verb *tungunpungku-la* indicates that the following main clause also has the same Medium *nganana* 'we'. This identity is reiterated by the same Medium conjunctive *munu* in +2, +3α and +4.

The other person in Text [3:4] is referred to anaphorically in 1α *tjana-la wangkangi* '(we) were talking **to those others**', and this potentially ambiguous identity is re-presented as *piranpa tjuta-ngka* 'to the whites'. Note the significance of 'case' marking to identification; it enables the identity to be re-presented in the same clause, as unambiguously identical because it has the same transitivity role (of Receiver here). This identity is presumed again in

4β with the switch Medium suffix on the dependent verb *utju-nyangka*. This switch reference only identifies the Medium as different from *nganana*, but since there is only one other person, it can only be 'the whites' who have squeezed off 'our breathing'.

Text [3:4] illustrates a median point on the cline between language accompanying and constituting social context. Although its personal reference includes the speaker, so tying its field to the context of interaction, the field it constructs lies outside the situation of speaking. In the latter mode, reference contributes to the coherence of the text by creating cohesion between individual messages, forming chains of reference across message series (see Martin, 1992:140). Reference chains relate the elements of each message back to the context that was constructed for them when they were first presented. So, identification functions as a cohesive link between otherwise discrete messages in a text, along with the logico-semantic links of clause complexing, with which reference may also be conflated. The discourse function of clause complexing is to relate a process to the one before it in various types of sequences. The discourse function of identification is to relate the participants in the process to the ones before it, so that between them, logical and referential ties can make adjacent messages strongly cohesive.

On the other hand, referential ties tend to go further than adjacent messages because the entities they refer to tend to persist in a text, while the processes they are involved in change. The effect of this is that reference chains help make a whole text cohesive, i.e. coherent with respect to itself. This was exemplified in Text [3:4] by one reference chain-linking clauses in terms of 'us-ness'. When recounting activity sequences from outside the situation, in the forms of stories or other context constituting texts, reference chains are a crucial device for tracking multiple participants who are non-interactants. This is illustrated in Text [3:5].

Text [3:5] *Kipara* 'plains bustard'

Text [3:5] is an opening extract from the traditional religious narrative, given in full in Chapter 1 as Text [1:6], in which 'fire' is a polysemic metaphor for the knowledge acquired through initiation.

- 1 *tjukurpa* *kunyu*
 (this is) myth it's said
 This is a Dreaming story, I have been told.
- 2 *anangu tjuta* *nyina-ngi* *manta nyanga-ngka*
 many people were living in this land
 People were living in this land.
- 3 *manta wingki-ngka* *kunyu* *nyina-ngi* *anangu tjuta*
 in all lands it's said were living many people
 In all the lands, it's said, the people were living.
- +4 *munu-ya paluru tjana* *waru kurakura* *kanyi-ningi* *tili maru-tjara*
 and-they those ones useless fire were having with black brands
 But at that time those people had useless fire, with black firebrands.

- 5 *tili maru-tjara kunyu nyina-ngi*
 with black brands it's said (they) were living
 With black firebrands, it's said they were living.
- 6 *nyawa **tjana** putu kunyu waru mantji-ningi*
 look! they unable it's said fire were getting
 Look, it's said they were unable to make fire.
- 7 *munga purunpa maru-ngka munga maru-ngka*
 like night in the dark in the dark night
 It was like perpetual night, like living in darkness, in the dark night,
- +8 *munu **tjana-ya** watarku nyina-ngi*
 and they-they in ignorance were living
 but furthermore those people were living in ignorance.
- +9 *ka kunyu wati kutju-ngku Kipara-ngku tili wirutjara-ngka nyina-ngi*
 and it's said one man Kipara having good fire was living
 And apparently there was only one man, only Kipara, who was living with fire with
 good brands.
- +10α *ka ngura kutjupa tjuta-ngka wati kutjupa tjuta-ngku kuli-ni wati kutju*
 and in various places various men are thinking one man
 So in numerous places, many men were thinking of this one man,
- 10β *mantji-ntjikitja **waru palu-nya***
 to get that fire
 of getting that fire from him.
- +11 ***ka ya** **palu-nya** putu mantji-ra tjulya-ra wana-ra tjulya-ra wana-ra*
 and they it unable getting snatching following snatching following
 But they were unable to get it, as they snatched at it, and followed him continuously.
- 12 *wati kutjupa tjuta-ngku tjulya-ningi putu*
 various men were snatching unable
 All those men were unable to snatch the fire from him.
- +13 ***ka** tjilka-ri-ngu*
 and (it) did become *tjilka*
 And this journey was transformed into the *tjilka*.

- 14 *tjilka-rara alatjitu* *kati-ngu*
 tjilka group itself (it) did carry along
 It was the *tjilka* host itself that was carried along in this journey.

3.2.2.2b Reference resources used in Text [3:5]

The participants in Text [3:5], ‘the people’, ‘*Kipara*’ and ‘the fire’ are all first presented as nominal groups. Presuming reference is then almost all anaphoric, identifying these participants in each step of the sequence. However there is also an implicit cataphoric reference to the following text in 1 *tjukurpa kunyu* ‘(this is) a myth as I was told it’, and an exophoric reference to the location of speaking in 2 *manta nyanga-ngka* ‘in this land’. Conjunctive reference includes the additive *munu* and *ka*, switching the Medium between ‘the people’ and ‘*Kipara*’, and also the ‘same Medium’ inflection for a dependent irrealis process in 10β*kulini ...mantji-ntjikitja waru palu-nya* ‘thinking of same Medium-getting the fire’.

As in the previous text examples, the field is also largely presumed in Text [3:5] through phoric reference items. However since the myth is creating its own field rather than accompanying action, the elements of the field must first be presented lexically. This begins in 2 and 3 when the participants *anangu tjuta* ‘many people’ (i.e. ‘the people’) are first presented. But note that even as a virtual context is being constructed, its spatial location is presumed in the situation of speaking with *manta nyanga-ngka* ‘in this land’. From here on the ‘people’ are referred to personally as *tjana* and/or *-ya*. These personal references are made more prominent in the text by combining items, e.g. *tjana-ya* literally ‘they3-they3’ or *ka-ya paluru tjana* ‘and-they3 those they3’. The function of variable prominence is to foreground and background the identities of referents in the flow of discourse, a point to be taken up further under Theme (§3.3) below.

In +4 a second participant *waru* ‘fire’ is presented lexically. In +9 a third participant *wati kutju*, *Kipara* ‘one man, the plains bustard’ is presented as possessing the ‘fire’. In 10α both *wati tjuta* and *wati kutju* are presented lexically, to make a significant contrast between the ‘many men’ and the ‘one man’. In 10β, the ‘fire’ is presumed as *waru palu-nya* ‘that fire’. In +11 both the ‘many men’ and the ‘fire’ are referred to with personal pronouns *ka-ya palu-nya putu mantjira* ‘and they (the men) were unable to get it (the fire)’. In 12 the identity of the ‘men’ is foregrounded by restating it lexically as *wati kutjupa tjuta* ‘many different men’. Finally in +13 and 14, the whole recounted activity sequence seems to be presumed implicitly as *ka tjilkaringu* ‘and (this sequence) became the *tjilka*’, and *tjilkarara alatjitu katingu* ‘(this sequence) carried along the *tjilka* group itself’.

However because it is implicit, the presumption in +13 and 14 is ambiguous: is it ‘the men’, ‘*Kipara*’ or the whole sequence that carried the *tjilkarara* along? This ambiguity of reference is crucial to the construction of causality in the myth [3:5], in which the social institution of the *tjilka* initiation ceremonies results, or more accurately ‘inchoates’, from the events of this story. There is no explicit realisation of ‘cause and result’ in Western Desert, except as an inchoative attribute ‘coming into being’, or the effect of a material process ‘doing to’. Processes or sequences are not nominalised as abstract participants (as is typical of written modes), but they may become participants by means of the implicit reference illustrated in 13 and 14, and so be assigned attributes (13), or possibly even ‘bring things into being’ (14). This is also the case in line 1 of the text, in which the text to follow is classified

by implicit cataphoric reference as *tjukurpa* 'myth' *tjukurpa kunyu* '(this is) the myth as it was told to me'.

3.2.3 Reference chains

In the discourse mode exemplified by Text [3:5], anaphoric and conjunctive reference are critical resources for the dynamic creation of a field. While the most of the reference in our previous example texts pointed to people, things and places in the material and social space of the situation, in Text [3:5] reference points mainly backwards to people and things in the virtual space of the text, including potentially the text itself as an abstract thing referred to. Whereas in each clause of field-accompanying texts, participants are identified in the situation, those in texts constituting a field are identified in preceding messages. Since the participants in narratives such as Text [3:5] are typically non-interactants, it is crucial that they must be both continually identified and their identities distinguished in each step of the sequence. To achieve this, anaphoric reference constructs identity chains, as for *nganana* in Text [3:4], that can run through the whole text, but it also interacts with conjunctive reference and case marking to distinguish the reference chains in each clause.

This is brought out very strongly if we map the reference chains in a text, in the manner suggested by Martin (1992:140), who describes reference relations as 'covariate dependency structures'.

...participant identification can be modelled with a dependency arrow showing the presuming nominal group to be dependent on the presumed one. For longer texts, these chains can simply be extended, with presuming items shown to be as well presumed... The basic descriptive strategy underlying chains formed in this way is to take each phoric item back once to the item which last realised or presumed the information that needs to be recovered.

The reference chains in Text [3:5] are modelled on these lines in Figure 3.1. There are three main chains of identity—*anangu tjuta*, *wati kutju* and *waru*—while the context is established initially with exophoric reference to place, and text reference to the story itself.

The persistence of *anangu tjuta* reference chain displays the centrality in the myth of 'the people', and their subset 'the men'. They are first presented twice in 1 and 2 and then identified in almost every clause. They are presumed personally and conjunctively in clauses 4, 5, 6, 8 and 11, and re-presented in 10 and 12 as *wati kutjupa tjuta*, and then finally as part of the *tjilka* they became in 13 and 14. However, as discussed above, the latter identity is ambiguous since the implicit entity that 'became *tjilka*' could refer to *wati kutjupa tjuta*, or it could refer to the whole activity sequence of following Kipara and snatching the *waru*. The first interpretation is suggested by the fact that today men are the participants in the secret *tjilka* initiation ceremonies, which are also known by the euphemism *wati tjuta*. On the other hand 13 begins with a switch Medium conjunction *ka*, suggesting that the Medium of 'becoming *tjilka*' should be different from the preceding *wati kutjupa tjuta* in 12. In any case it is this very ambiguity of reference that contributes to the religious construal of cause and effect in the text (discussed in Rose 1993). Also extending over most of the text is the *waru* reference chain in one or another manifestation, since it is the focus of the people's attention and efforts, while the third chain is the 'Kipara' *wati kutju*, the selfish villain of the story.

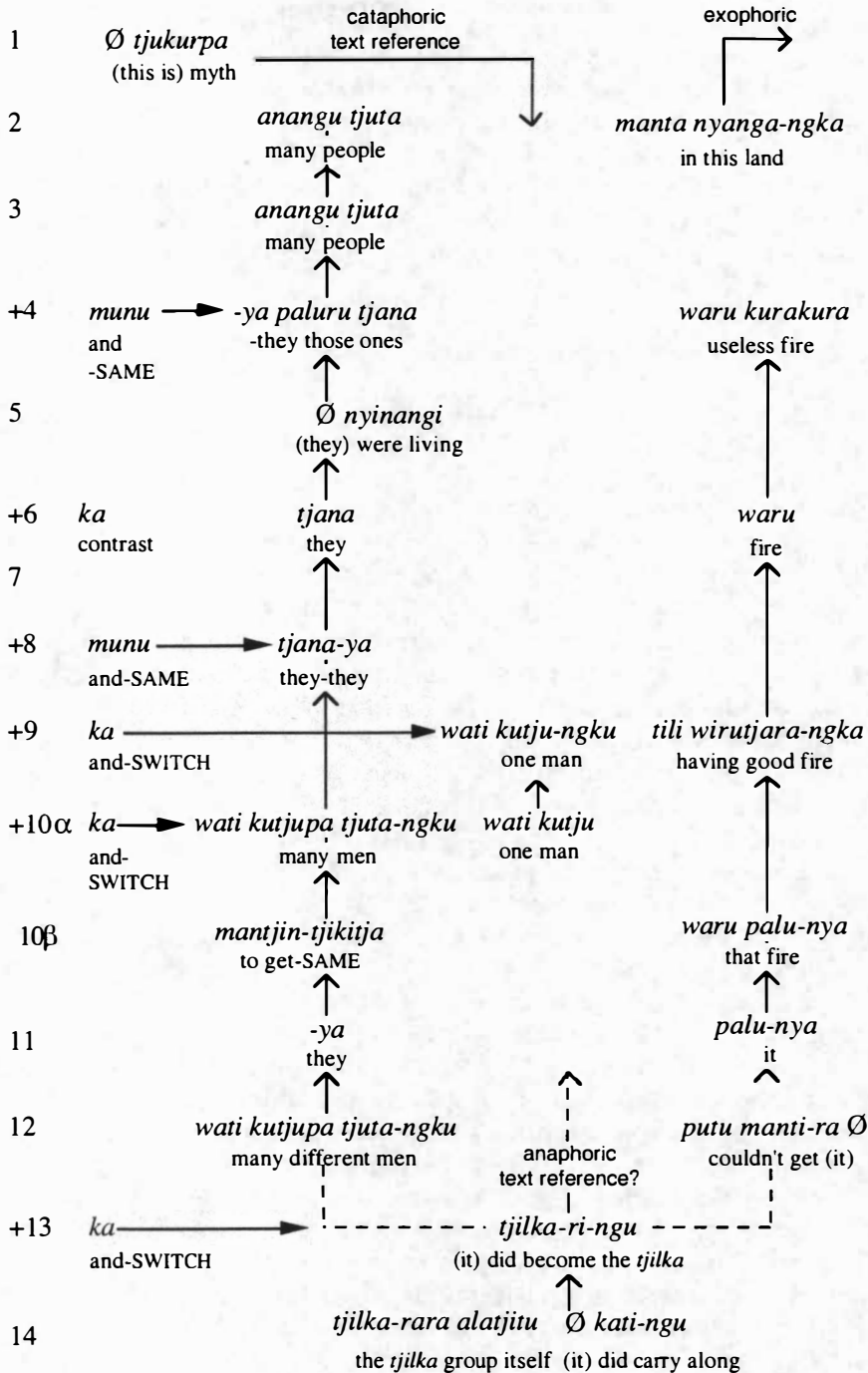


Figure 3.1: Reference chains in Text [3:5].

Simultaneous with the cohesive function of such chains, reference resources serve to distinguish multiple identities within each message. Conjunctive reference is one resource for this, illustrated by the switching of Medium from clause 8 *tjana-ya*, to 9 *ka wati kutju-ngku*,

and then again to 10 *ka wati kutjupa tjuta-ngku*. Another resource is the 'case' inflection of participants, so that in 9, *wati kutju-ngku* is marked as the Medium in contrast to the *waru* as Range, and in 10 *wati kutjupa tjuta-ngku* is marked as Medium in contrast to uninflected *wati kutju* as Range. Likewise in 10β, *mantji-ntjikitja* indicates that 'the men' is still Medium in contrast to *waru palu-nya* 'that fire' which is marked as Range. In 11, *-ya* 'they3' is Medium again in contrast to *palu-nya* 'it' marked as Range. These intra-clausal contrasts in identity interact with the inter-clausal iteration of identities to create text that is tightly cohesive, but where each identity and its role is clearly distinguished.

3.2.4 Identification and mode variation

The text examples above illustrate a variety of possible roles that the language plays in its contexts of communication, or mode choices (discussed in §1.3.4 above), realised by a variety of possible unfolding relationships between the text and its context, i.e. its logogenesis. Each text represents a position on a continuum of potential variation in mode in the Western Desert culture, from merely accompanying social action ('language-in-action') to constituting the main part of it ('language-as-reflection'). At one end of the cline are texts which are entirely dependent on their context of speaking, for identifying most of their experiential meaning [3:2]. At the other end are narrative texts which explicitly present all their experiential meaning and are almost independent of their situation [3:5], so much so that they may be told in almost identical form in many situations over perhaps hundreds of generations, i.e. as myths. (See e.g. Levi-Strauss 1970–1978, Dumezil 1968 for discussion of the breadth of geographical dispersal and depth of temporal persistence of myths). In between these poles of action and reflection are exchanges that are context dependent, but whose subject matter includes other situations [3:3], as well as recounts whose subject matter is about the interactants [3:4], among many other possible varieties.

We have described the logogenesis of our text examples, and summarised its features in terms of mode variation. But mode variation is also one of the most significant features both of variation between cultures, e.g. the presence or not of a written mode (phylogensis), and of the maturation of individuals, from infants' 'protolanguage' to adult registers (ontogenesis). Variation in both these semogenic domains can be explored from the perspective of variation in resources for IDENTIFICATION. In all cultures a child first learns to identify entities exophorically, and it is not until one or two years old, when they begin to leave their infant protolanguage behind and acquire the lexicogrammatical resources of their mother tongue, that their use of reference starts to become endophoric (e.g. Halliday 1975, Painter 1984). From my own long-term observations, it seems that by about the age of seven, Western Desert children learn to successfully manipulate the resources of the identification system to create cohesive narrative involving multiple participants. Up until that time children's recounts largely involve themselves and their addressees, and reference to non-interactants is often ambiguous or heavily dependent on shared knowledge with their listeners. Partly for this reason, recounts are often jointly constructed between children and with their elders, as events, sequences and identities are clarified, and strategies for participant identification and clause complexing are modelled.

As a second phylogenetic step it is conceivable that simple activity sequences could be constructed with such limited identification resources, since participant identities may be explicitly distinguished in each message of a sequence by the personal pronouns 'I', 'you', 'we' or 'other (near/far)'. This simple resource for distinguishing identities of interactants in activity sequences is illustrated in Texts [3:3] and [3:4] (although of course these texts also contain more elaborate sequencing and identifying options as well). Both Western Desert and English, and presumably all other modern languages, long ago developed beyond this phylogenetic stage to be able to refer and name semiotic entities, to construct texts that constitute their own contexts.

3.3 THEME

Theme is a textual resource for organising the structure of a clause as a message, and for adjusting the relative prominence of messages in the flow of discourse. Theme is defined by Halliday (1994a:37) as:

...the point of departure of the message; it is that with which the clause is concerned... We may assume that in all languages the clause has the character of a message: it has some form of organisation giving it the status of a communicative event. But there are different ways in which this may be achieved. In English, as in many other languages, the clause is organised as a message by having a special status assigned to one part of it. One element of the clause is enunciated as the theme; this then combines with the remainder so that the two parts together constitute a message.

The meaning of the thematic organisation of each clause only makes sense in the context of its discourse semantic function, that of relating each message to its context. If we have another look at Text [3:2] from the perspective of Theme, we can see very clearly that each message is organised into the speaker's point of departure, i.e. "this is what I'm talking about" and remainder "this is what I'm saying about it". So the Theme usually extends up to and includes the **first experiential element** that the speaker is talking about. In Text [3:2] most of what each speaker is talking about are **places**, so that in almost every clause, the experiential element in the Theme is a place. In the transcript of Text [3:2'] below, Themes are underlined.

Text [3:2']	Theme
D1 <u>nyangatja</u> nyaa this what? What is this?	place
Y1 <u>wiya nyanga</u> kura kura no this no good No, this is no good.	place
E1 <u>piruku wati-wani</u> nyangatja again throw across-! this Throw (the earth) again over here!	imperative
<u>uwa alatjitu piti panya palatja</u> yes exactly that hole there Yes exactly, that hole there.	place

- Y2 paku-ri-ngu ala palatja attribute (inceptive)
has become tired 'see that!'
He's getting tired, see!
- E2 palatja kuriya' nyawa place
that getting bad look-!
That's no good, look!
- nyangatja wiru-nya place
this good
This is good.
- Y3 ala pala' pala munkarra waakari-nyi munkarra place
'see that!' that other side is working other side
See! There on the other side he's working, on the other side (of the hole).
- E3 nyaratja-lia nyina-nyi paluru place
yonder-that is sitting it
There it is, over there.
- nyara nyina-nyi nyawa place
yonder is sitting look-!
It's over there, look!
- Y4 wiya nyawau imperative
no look-!
No, look!
- E4 nyaratja nyina-nyi place
yonder is sitting
It's over there.
- munkarra ma-tjawa-! place
other side dig over there-!
On the other side, dig over there.
- nyangatja katja place
this son
Here, son!
- tjinguru nyara-ngka nyina-nyi urilta place
maybe yonder is sitting outside
It may be over there, on the outside.
- D2 nyangatja place
this?
This?
- E5 uwa ala palatja exclamative
yes 'see that!'
Yes, see!
- pala palu-la arka-la place
at that there try-!
Try that there!

- Y5 *ala pala'* exclamation
 'see that'?
 See!
- D3 *muntauwa* exclamation
 aha!
 I see!

Overwhelmingly it is places in the situation that speakers are talking about and it is this that they start each message with. Where places are not Themes in Text [3:2], the experiential Theme is either a process or a quality. In the commands, D2 is the process demanded which is Theme *piruku wati-wani* 'again throw across!', *wiya nyawau* 'no look!'. In Y2 it is an attribute of D that is Theme *pakuringu* '(he) has become tired'. E5, Y5 and D3 are exclamations, which have no experiential content.

In addition to the exclamatives, interpersonal elements are features of Themes in many of these messages, and precede the experiential element. These include in Y1 *wiya* 'no', in E1 *uwa alatjitu* 'yes exactly', in Y2 the exclamative *ala pala'* 'see that!', in E4 *tjinguru* 'maybe', in E5 *uwa ala palatja* 'yes see that!'. Clearly the speakers' starting point is not simply 'about' an experiential element; the starting point may also be the interaction itself, including in this text:

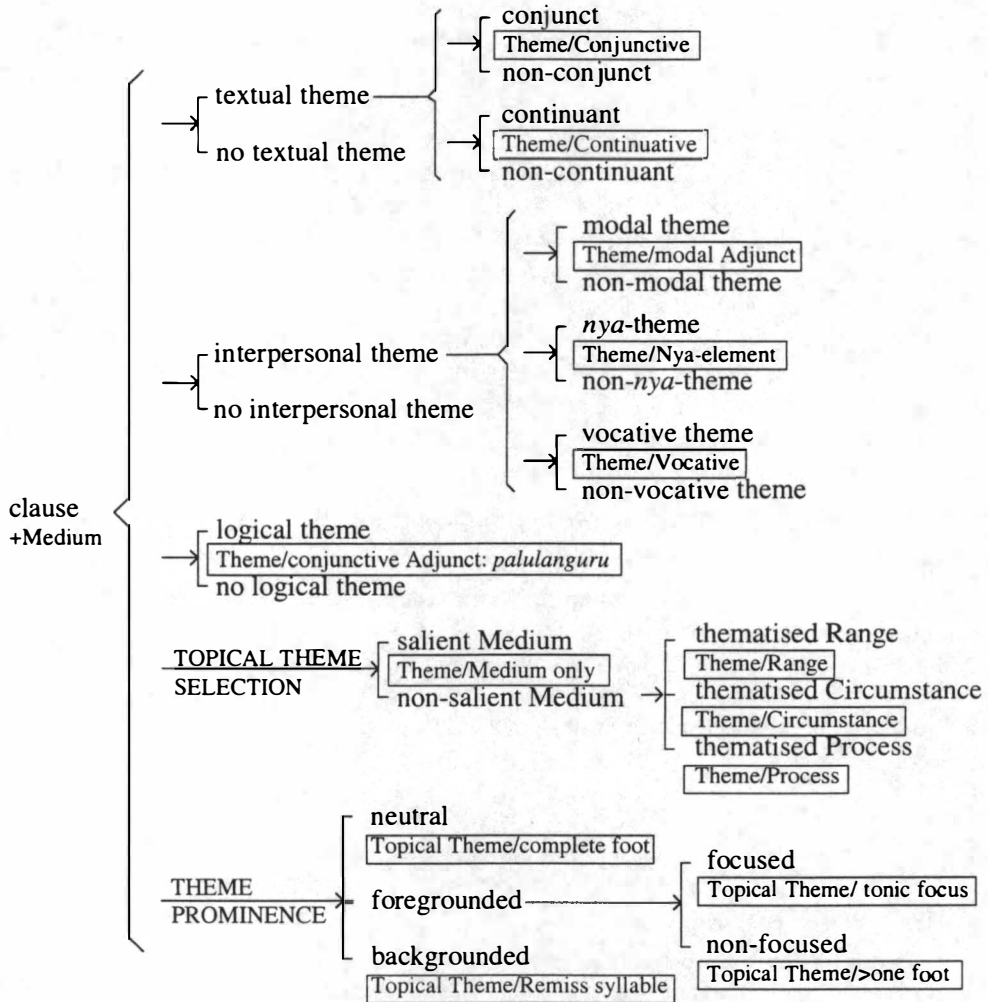
- i) an affirming or negating response to the previous message *uwa* or *wiya*,
- ii) a judgement such as likelihood *tjinguru* or degree *alatjitu*,
- iii) an exclamative response *ala palatja*,
- iv) some combination of these.

Indeed the whole message may be consumed by interpersonal meaning, as in the three exclamations. Likewise the whole message may be experiential Theme, as in D2 *nyangatja* 'this?' (although this obviously also has an interpersonal dimension as a question).

So in Text [3:2] we can clearly see that the Theme is the point where speakers ground each message in its local context. It is the background against which the rest of the message unfolds—here it is the places where the action happens. However the text organising potential of Theme grows considerably richer in texts which constitute their own contexts. In this environment, Theme becomes a critical resource for organising text as sequences of messages, which are 1) cohesive, and 2) hierarchically structured. I will take each of these issues in turn, firstly with Theme and Identification, and secondly with Theme and hierarchy of periodicity.

Resources in THEME consist of obligatory selection of a topical theme, and of a degree of theme prominence, as well as optional selections of textual, interpersonal and logical theme. Each of these selections may be made simultaneously, i.e. in addition to a topical theme, a clause may also have a textual theme, and/or an interpersonal theme, and/or a logical theme. Textual themes may consist of either a Conjunctive or a Continuative or both. Interpersonal themes may be a modal Adjunct, and/or a *Nya*-element, and/or a Vocative. These interpersonal elements are discussed in detail in Chapter 4, but are also exemplified in this chapter in the context of interpersonal Themes. Logical themes consist of a conjunctive Adjunct *palulanguru* 'from that/there/then'. Topical themes include the Medium, and if this is presumed non-saliently (by a clitic or conjunction) may consist of a salient Range, Circumstance or Process. There are three options in THEME PROMINENCE realised by rhythm

and intonation, neutral, foregrounded and backgrounded. These general options for THEME are set out in System 3.4.



System 3.4: General options in THEME

3.3.1 Types of element functioning as Theme

Elements of Themes fall into three categories along metafunctional lines. Firstly there are textual Themes which include conjunctions and continuatives. Since these function to relate the message to the one immediately preceding, they tend to come first in the Theme, as we have seen for *ka* and *munu* in 3.2 above. Secondly, interpersonal elements are also frequently part of the Theme, specifying the interpersonal point of departure for the message, grounding it in the interpersonal context of the interactants' relationship or of the preceding move in the verbal exchange between them. Interpersonal Themes include affirmations or negations, question elements, judgements, exclamations, vocations and other items, and tend to follow textual Theme elements. Finally, experiential Themes include Medium, Range, Circumstance

or Process. A Theme extends up to and includes the first experiential element of a message, functioning as “an anchorage in the realm of experience” Halliday (1994a:53). Once the message is so anchored, it has established a local context in which the remainder of its experiential meaning can unfold, so that any elements following the experiential Theme are part of the Rheme. The experiential Theme corresponds largely with the notion of ‘topic’ in formally oriented ‘topic-comment’ analyses, such as Bowe’s 1990 discussion of ‘constituent order in Pitjantjatjara’ (reviewed in §A.2.6 below).

By far the most common experiential Theme is Medium, which is a part of the Theme, in some form, in almost all clauses. Context embedded instructional texts such as [3:2] are exceptional in this sense, since the thematic experiential referent in each message is a location in the situation. In most other text types, the Medium is the most likely Theme. Since what the message is most often concerned with, from an experiential point of view, is the Medium—what it is doing, what is happening to it, or what its attributes or identities are—it is the Medium that is typically presented and then tracked through a text within the Theme of each message. This is such a pervasive pattern that even when the identity of the Medium is not stated, it is inherently thematic. Unless otherwise indicated, it can be implicitly presumed to be the same as the Medium of the preceding message.

Thematic Mediums may be realised by:

- i) a nominal group presenting the Medium as a member of a class of entities (common nominal), or as an individual (proper name);
- ii) a salient pronominal group, presuming the Medium as recoverable from the preceding discourse or context of situation;
- iii) a clitic pronoun suffixed to a salient element, likewise;
- iv) an additive conjunction, identifying the Medium as the same or different to that of the preceding clause;
- v) some combination of the above.

Amongst these options, the most common realisation of Medium is as a personal pronoun, salient or clitic. This is predictable, since Western Desert is a spoken language, and as Halliday (1994a:44) explains:

In everyday conversation the item most often functioning as unmarked Theme in a declarative clause is the first person *I*. Much of our talk consists of messages concerned with ourselves, especially with what we think and feel. Next after that come the other personal pronouns, *you, we, he, she, it, they*; and the impersonal pronouns *it* and *there*. Then come other nominal groups - those with common or proper noun as Head...

While the functions of personal pronouns in general are simultaneously textual and interpersonal, and therefore doubly likely to be Theme candidates, the primary function of clitic pronouns is to be able to background the identity of participants in the textual structure of the clause. This enables other salient elements to be foregrounded as Theme, to which clitics may then be appended.

3.3.2 *THEME and IDENTIFICATION*

In field-constituting mode, Theme structures at clause rank interact with identification chains at text level. A natural starting point for each message is to identify central

participants of a text as same or different from those in the preceding message. For this reason it is not surprising that the most frequent experiential Theme element is the entity instantiating the role of Medium. In other words, the experiential starting point of each message is the relation between its 'core participant' and that of the preceding clause(s). In such texts, the identities of its core participants constitute the experiential background against which the rest of each message unfolds.

If we look at Text [3:5] again, from the perspective of Theme, we find that almost all of the identification takes place in the Theme of each message, either presenting identities of people, things and places lexically, or presuming them pronominally. In the following transcription of Text [3:5] each Theme is underlined, and reference arrows are reproduced. Lexical Themes that first present identities are double underlined, pronominal Themes that presume these identities are single underlined, while Themes that are not part of reference chains are dotted underlined. Where the thematic presumption in Text [3:5] is explicit, reference arrows are located above these items -*ya*, *tjana*, *tjana-ya*. Where they are implicit (i.e. backgrounded non-interactant), in lines 5, +13 and 14, there are also reference arrows above the Theme, since the unstated Medium identity is inherent in the Theme. (Note that clause-rank translations are not repeated in this transcript for the sake of visual clarity.)

Text [3:5'] Kipara Themes and IDENTIFICATION

- | | | | | | |
|----|---|--------------------------------------|---|---|-------------------------------------|
| 1 | <u>tjukurpa</u>
myth | <i>kunyu</i>
it's said | | | |
| 2 | <u>anangu tjuta</u>
many people | <i>nyina-ngi</i>
were living | <i>manta nyanga-ngka</i>
in this land | | |
| 3 | <u>manta wingki-ngka</u>
in all lands | <i>kunyu</i>
it's said | <i>nyina-ngi</i>
were living | <u>anangu tjuta</u>
many people | |
| +4 | <u>munu-ya</u> <i>paluru tjana</i>
and-they those ones | <i>waru kurakura</i>
useless fire | <i>kanyi-ningi</i>
were having | <i>tili maru-tjara</i>
with black brands | |
| 5 | <u>tili maru-tjara</u>
with black brands (they) | <i>kunyu</i>
it's said | <i>nyina-ngi</i>
were living | | |
| 6 | <u>nyawa</u> <u>tjana</u>
look-! they | <i>putu</i>
unable | <i>kunyu</i>
it's said | <i>waru</i>
fire | <i>mantji-ningi</i>
were getting |
| 7 | <u>munga purunpa</u>
like night | <i>maru-ngka</i>
in the dark | <i>munga maru-ngka</i>
in the dark night | | |
| +8 | <u>munu</u> <u>tjana-ya</u>
and they-they | <i>watarku</i>
in ignorance | <i>nyina-ngi</i>
were living | | |

- +9 ka kunyu wati kutju-ngku Kipara-ngku tili wirutjara-ngka nyina-ngi
and it's said one man Kipara having good fire was living
- +10α ka ngura kutjupa tjuta-ngka wati kutjupa tjuta-ngku kuli-ni wati kutju
and in many different places many different men think one man
- 10β mantji-ntjikitja waru palu-nya
(they) to get that fire
- +11 ka ya palu-nya putu mantji-ra tjulya-ra wana-ra tjulya-ra wana-ra
and they it unable getting snatching following snatching following
- 12 wati kutjupa tjuta-ngku tjulya-ningi putu
many different men were snatching unable
- +13 ka tjilka-ri-ngu
and (it) did become tjilka
- 14 tjilka-rara alatjitu kati-ngu
tjilka group itself (it) did carry along

Most of the experiential Themes in Text [3:5] are the three entities participating in reference chains, *anangu tjuta* 'the people', *tili maru-tjara* '(fire) with black brands' and *wati kutju*, *Kipara*. The only Themes that are not in reference chains are locations and qualities of the environment, in clause 3 *manta wingki-ngka* 'in all lands', clause 7 *munga purunpa* '(it was) like night' and clause 10α *ngura kutjupa tjuta-ngka* 'in every place'. In fact these Themes also constitute an identity chain in the text, of environments rather than participants.

The three participants are either presented or presumed as Themes. This is the natural position for presenting entities from the speaker's point of view (i.e. "this entity is what I'm talking about"), and the natural position for presuming them from the perspective of both speaker and addressee (i.e. "this entity that we both know is what I'm talking about").

3.3.3 THEME PROMINENCE

A text is never a continuous stream of messages whose significance is undifferentiated. Rather it is punctuated by hierarchies of significance that organise it into stages. This organisation is labelled by Fries (1981), from the perspective of rhetorical function, as the text's 'method of development', and by Martin (1992), from the perspective of discourse structure, as a 'hierarchy of periodicity'. That is, the periodic structure of the clause as message is employed to organise texts and text segments as larger periodic structures.

These periodic hierarchies are achieved by 'marking' clause-rank Themes as more or less prominent in the periodic structure of a text. Variation in the phonological prominence of items realising transitivity roles enables additional choices between least marked and most

marked Themes. The neutral choice is for experiential elements to be identified by salient (pro)nominal groups. The least prominent realisation of Medium is as an additive conjunction plus clitic personal reference. When these comprise the Theme, it is minimally prominent (or maximally backgrounded). The most prominent choice of Theme is to expand or re-iterate its identity or qualities, or to mark it with the tonic focus, presenting it as marked New information. It thus becomes doubly prominent, both as Thematic element of the message and as New element of the information unit.

3.3.3.1 Neutral prominence

Since Thematic prominence is realised by its phonological salience, I need to review the resources for doing so, the first of which is rhythm. As we discussed in §2.5.3, Western Desert is a foot-timed (or 'stress-timed') language, i.e. spoken on pedal rhythm. Each message/tone group consists of at least one rhythmic foot. Each foot consists of an initial salient syllable that carries the beat, known as the 'ictus', and one or more following weaker syllables, known as 'remiss' (after Abercrombie 1967, Halliday 1967a). In Western Desert discourse there is a strong tendency for one foot to correspond to a word; the boundary between feet very rarely, if ever, occurs in the middle of a word (as is common for instance in English).

The significance of this is that a Theme consists of at least one foot, so that for a start, the boundary between Theme and Rheme is marked not only lexicogrammatically, but by a foot boundary as well. This is exemplified for simple Themes with neutral prominence, presented lexically in [3:8], and presumed pronominally in [3:9]. Foot boundaries are indicated by a single slash /, tone group boundaries by a double slash //, and Themes are underlined. (Again clause-rank translations are not repeated.)

[3:8] // wati / kutjara / kunyu / kuta-rara / nyi-nangi //
 two men it's said brother-pair were sitting
 It's said that there were two men who were brothers.

[3:9] // nyangatja / wiru-nya //
 this good
 This is good.

Looking again at an extract from Text [3:2'], we find that each experiential Theme is realised by a salient element such as *nyaratja*, *munkarra*, *nyara-ngka*, consisting of two or three syllables of a single foot.

Text [3:2"] extract

E4 // nyaratja / nyina-nyi //
 yonder is sitting
 // munkarra / ma-tjawa-! //
 other side dig over there-!
 // nyangatja / katja //
 this son
 // tjinguru / nyara-ngka / nyina-nyi // urilta //
 maybe this is sitting outside

D2 // nyangatja //
this?

E5 // uwa / ala palatja //
yes 'see that!'
// pala palu-la / arka-la //
at that there try-!

In this text there is relatively little variation in the prominence of experiential Themes. In the flow of discourse each message is as prominent as the other, since it is not the preceding or following messages that each one relates to, rather each one relates independently to the context of situation.

In the exchange between sisters, in Text [3:3], we find a comparable pattern of experiential Themes with neutral rhythmic prominence, e.g. *pitjala nyawa, watjalku, nyaa, pitingka*.

Text [3:3']

- M1 // wanyu / paka-ra pitja //
'please' getting up come!
- 2 // kangkuru // watjalku-na-nta //
"EZ" will I tell you?
- K1 // nyaa-n / nya-ngu // nyaa // nyaa //
what?-you did see what? what?
- 2 // wala-ngku / watja-la //
quickly tell-!
- 3 // nyaa-n / wangka-nyi //
what?-you are saying
- M3 // wanyu / puta / pitja-la nya-wa //
'would you please' coming look-!
- 4 // kuniya / pulka alatjitu / tjarpa-ngu //
an utterly huge python did enter (a burrow)
- 5 // piti-ngka -ni / nguwanpa / tjarpa-tju-nu //
into a burrow me nearly did drag in
- 6 // pulka / mulapa //
big really

An interesting feature of these neutral Themes in Text [3:3] is that several also include clitic pronouns identifying:

- i) Medium *nyaa-n* 'what?-you',
- ii) Range *pitingka-ni* 'in a burrow-me', or
- ii) both Medium and Range *watjalku-na-nta* 'will I tell you?'

If we include the implicit addressee in imperative clauses, e.g. *pitjala nyawa* '(you) getting up come', and implicit non-interactant in indicatives, e.g. *pulka mulapa* '(it) was really big', then all the participants in each clause have clitic realisations, with the exception

of M4 *kuniya pulka alatjitu*. Now the message organising function of personal clitics becomes clear. With the exception of M4, each of the salient experiential Themes in Text [3:3] is not the Medium, rather the salient Themes are:

- i) Process *pitjala nyawa, watjalku*,
- ii) Range *nyaa, pulka mulapa*,
- iii) Circumstance *piringka*.

Even though these Themes are not Medium they may still be neutral in prominence. By cliticising the Medium (and if necessary the Range as well), other elements can become unmarked, i.e. neutral Theme. This is very similar to the function of passive voice in English (described by Halliday 1994a:169) which enables elements such as Range or Goal to become unmarked Theme. However the Western Desert strategy of cliticisation enables a Process or Circumstance, as well as Range, to be unmarked Theme. (In English the Process can only be unmarked Theme in imperative clauses, and Circumstance or Range are marked Themes, a textual function realised by rhythm and intonation in Western Desert.) Cliticisation means that the identity of the Medium, and potentially a Range as well, remains a backgrounded element of the Theme, while another element is presented saliently. This enables the identity of core participants to be tracked through a text within the Theme of each clause, while at the same time presenting other elements thematically.

So far we have looked at Themes in texts where there is little variation in prominence. An exception is the Theme of clause M4 in Text [3:3] / *kuniya / pulka alatjitu* /. This Theme presents a new identity that is phonologically foregrounded; it could have been introduced as single item *kuniya*, but the textual effect of intensifying it over two rhythmic feet is to foreground this message in relation to those preceding it.

If we look again at an extract from Text [3:5], we find that there is considerable variation in the salience of experiential Themes.

Text [3:5"] extract

- +8 // *munu / tjana-ya* / *watarku* / *nyina-ngi* //
and they-they in ignorance were living
- 9 // *ka / kunyu / wati / kutju-ngku / Kipara-ngku* / *tili wiru tjara-ngka*
and it's said one man Kipara having good fire
/ *nyina-ngi* //
was living
- 10 α // *ka / ngura / kutjupa tjuta-ngka* / *wati / kutjupa tjuta-ngku* / *kuli-ni*
and in various places various men are thinking
/ *wati / kutju* //
one man
- 10β // *mantji-ntjikitja* / *waru palu-nya* //
to get that fire
- 11 // *ka -ya* / *palu-nya* / *putu mantji-ra* //
and they it unable getting

In clause 8 the experiential Theme *tjana-ya* is about as salient as those we saw in Text [3:3], a single foot of three syllables. In clause 9, by contrast, the experiential Theme is

restated, *wati kutju-ngku Kipara-ngku* 'one man, Kipara', occupying three feet, more than doubling its prominence relative to the Theme of clause 8. The experiential grounding of this message is an identity that is strongly contrasted with the preceding one. Likewise the experiential Theme of 10*a* is similarly prominent, anchoring the message in a location *ngura kutjupa tjuta-ngka* 'many different places'. In clause 10 Theme prominence returns to neutral with *mantji-ntjikitja*, while the experiential Theme of 11 is backgrounded in the form of a clitic pronoun -*ya*.

We can thus see three potential degrees of Theme prominence in this extract:

- i) **neutral** prominence realised by an experiential Theme on one or two rhythmic feet;
- ii) **foregrounded**, or marked prominence, where the experiential Theme occupies three or more feet;
- iii) **backgrounded**, or low prominence realised by a conjunction and clitic pronoun.

In context-dependent texts, there may be little need to vary the prominence of each message in the flow of discourse, because each message relates fairly independently to the context of situation. But where a text constitutes its own context, messages have to be assigned degrees of prominence relative to each other; while some messages present or presume elements of the field neutrally, certain messages foreground elements against the background of those preceding, while other messages presume identities as background against which to present new elements.

3.3.3.2 Foregrounded prominence

So far we have noted the resource of elaborating an identity to foreground it as Theme. This may be done by restating or clarifying an identity, as in *wati kutju-ngku Kipara-ngku* 'one man, (i.e.) Kipara'. Or it may be done by recursively modifying an entity, e.g. by describing and evaluating it as in *kuniya pulka alatjitu* 'really [Intensifier] huge [Epithet] python [Thing]', or by describing and counting it *ngura kutjupa tjuta-ngka* 'many [Numerative] different [Epithet] place [Thing]'. In any case the textual effect is to present a thematic element contrastively as particularly significant in the text's logogenesis, if it is realised over three or more rhythmic feet. This potential for elaborating identities as Theme is brought out very strongly in the following example [3:10], from a traditional narrative, in which the identity of the narrative hero is presented as especially prominent.

[3:10] // *ka / Warutjulyalpai / wati paluru / wati / Warutjulyalpai / tjulpu panya / Warutjulyalpai / wirtjapaka-nu* //

And Warutjulyalpai ('snatches fire'), that man, the man Warutjulyalpai, that bird Warutjulyalpai did race.

The other resource for foregrounding Themes is to give them tonic focus. Tonic focus on Theme is a marked option in INFORMATION FOCUS, discussed below in §3.4.2. The unmarked pattern is for the tonic focus to fall on the last lexical element of a clause, so that when it falls on the Theme its effect is to foreground the message. This is exemplified in the opening lines of Text [3:5], re-presented here as example [3:11]. Here the Theme is underlined, and the item receiving tonic focus is in **bold**.

[3:11]

- 1 // anangu / tjuta / nyina-ngi / manta / **nyanga-ngka** //
many people were living in this land
- 2 // manta / wingki-ngka / kunyu / nyina-ngi / anangu tjuta //
in all lands report were living many people

In clause 1 the identity of the central participants *anangu tjuta* is presented with neutral Theme prominence, and the tonic focus is on the last clause element *manta nyanga-ngka* ‘in this land’. In 2 this element is re-presented as Theme *manta wingki-ngka* ‘in all lands’, with the tonic focus on *wingki* ‘all’. The effect is to foreground the significance of the location of the people, as the starting point from which the narrative unfolds.

The contrastive effect of a foregrounded Theme may be employed to mark a new stage in the text. The following sequence [3:12], is the first stage in an historical narrative.

[3:12]

- 1 // titji / tapalyu / nyina-ntja / time // paluru tjana / panya
[[DCW sitting]] time those they3
/ pitja-la / tjapi-ningi //
coming were asking
The time that DCW was here, they were coming and asking.
- +2 // ka / anangu / tjuta-ngku / panya / Lands Trust
and many people that Lands Trust
/ putu / kuli-ningi //
unable were understanding
And many people were unable to understand that Lands Trust.
- +3 // ka -ya / alatji / kuli-ni //
and they this way were thinking
And they were thinking thus,
- ‘4 // tjinguru / fence / para-tju-nanyi //
maybe fence around are putting
“Maybe they are putting a fencing around our land.”

The foregrounded Circumstance/Theme in 1 introduces the first stage of the text with a temporal location. In this case the foregrounding is realised by modification of the nominal group *titji tapalyu nyina-ntja time* ‘the time [Thing] [[that DCW was here]] [Qualifier]’, as well as a separate tone group (see §3.4.1.2b below). Although this group includes English words, ‘DCW’ (Dept of Community Welfare, SA, who controlled the communities until 1974) and ‘time’, its structure is wholly Western Desert, including the embedded clause *titji tapalyu nyina-ntja* as Qualifier (note the NOMINAL suffix on the verb *nyina-ntja*). Clauses +2 and +3 have unmarked Themes, while in ‘4 Theme is marked with tonic focus.

3.3.3.3 Backgrounded prominence

We have seen how the identity of participants can be backgrounded by cliticising their realisation. This potential can also be used to background the Theme as a whole, if the first experiential element is realised by an additive conjunction plus a clitic pronoun. In this case

the resource of pedalian rhythm works to reduce prominence. While each foot necessarily consists of an ictus and usually a remiss syllable as well, the ictus may be realised by a silent beat. This means that the element spoken on such a foot is non-salient, since it is spoken off the beat, on a weak remiss syllable. This can become a resource for backgrounding an experiential Theme in the flow of discourse. The conjunction plus clitic pronoun are non-salient elements spoken on remiss syllables following a silent ictus. This is illustrated in example [3:13].

[3:13]

- 1 // wiya / wanti / palya //
 no, leave it-! alright
 No, leave it, OK.
- +2 // ^ ka-la / piruku / kuli-la //
 and-SW-we3 again think-!
 And we'll think some more about it,
- +3 // ^ munu / wangka / ngula //
 and-SM talk-! later
 and talk about it later.

In +2 the Medium is switched conjunctively away from the addressee, and also realised non-saliently as *-la* 'we3'. In addition to non-salient realisation as conjunction plus clitic, the identity of Medium may be realised saliently as well. However in this case the salient realisation restates the Medium identity as part of the Rheme. This is illustrated for 'they' in +2 of example [3:14] and 'we' in +2 of example [3:15].

[3:14]

- 1 // manta / wingki-ngka / kunyu / nyina-ngi / anangu tjuta //
 in all lands it's said were sitting many people
 In all the lands, it's said, the people were living.
- +2 // ^ munu-ya / paluru-tjana / waru / kurakura / kanyi-ningi //
 and-they those ones useless fire were having
 // tili maru-tjara //
 with black brands
 But at that time those people had useless fire, with black firebrands.

[3:15]

- 1β // ^ ka / nganana / tungunpungku-la //
 and we disagreeing,
 And disagreeing with them,
- α // pulkara / tjana-la / wangka-ngi // piranpa tjuta-ngka //
 strongly to them were talking to the whites
 // nganampa / manta-ku //
 for our land
 we were talking strongly to them for our land, to the whites.
- +2 // ^ munu -la / nganana / mala-ngka / waintari-ngu //
 and we we afterwards moved ahead
 And after this we moved ahead (with land rights).

On the other hand, low prominence Themes may also include clitic pronouns that are not Medium, for example *-ni* 'me' in example [3:16] below, where clitics functioning as Range *-ni*, Medium *-ya* and modal adjunct *-wi* are suffixed in sequence to *ka*.

- [3:16] *ka -ni -ya -wi inka-tjingka-ntja-wiya-ngku*
 and me you 3 I wish do not tease-!
 And I wish you all not to tease me.

3.3.3.4 Text example: THEME, IDENTIFICATION and PROMINENCE

Text [1:2], first shown in Chapter 1 above, illustrates the two aspects of Theme we have discussed so far, its interaction with participant identification and potential for marking messages as more or less prominent. As far as identification is concerned, Text [1:2] involves two pairs of siblings, two brothers and two sisters, whose identities are presented and then tracked through the narrative as Themes. The two men are presented first, followed by the two women whom they marry. Tonic focus in each clause is indicated in bold.

Text [1:2"] Identity of Medium

- | | | |
|----|--|----------------------|
| 1 | // <i>wati / kutjara</i> / <i>kunyu</i> / <i>kuta-rara</i> / <i>nyi-nangi</i> // | brothers |
| | two men it's said brother-pair were sitting | |
| | It's said that there were two men who were brothers. | |
| 2 | // <i>kungkawara / kutjara</i> / <i>alti-ngu</i> // <i>kangkuru-rara</i> // | sisters and brothers |
| | two young women did marry sister-pair | |
| | They married two young women who were sisters. | |
| 3 | // <i>wati / kutjara pula</i> / <i>a-nu</i> / <i>malu-ku</i> // | brothers |
| | they2 two men did go for kangaroos | |
| | Those two men went hunting for kangaroos. | |
| 4 | // <i>kuka / kanyila-ku</i> / <i>tati-nu</i> // <i>puli-ngka</i> // | brothers |
| | for wallaby game (they) did climb up the hills | |
| | For wallabies, that is, they climbed up in the hills, | |
| +5 | // ^ <i>munu pula</i> / <i>kuka / kanyila</i> / <i>kati-ngu</i> // | brothers |
| | and-SM they 2 wallaby game did bring back | |
| | and they brought back wallaby meat to the camp. | |
| +6 | // ^ <i>ka pula</i> / <i>mai-ku</i> / <i>tjaru-ukali-ngu</i> // | sisters |
| | and-SW they 2 for food did descend down | |
| | Meanwhile the other two for went down to the plain, looking for vegetable foods, | |
| +7 | // ^ <i>munu pula</i> / <i>mai ili</i> / <i>ura-ningi</i> // | sisters |
| | and-SM they 2 fig food were collecting | |
| | and were collecting wild figs. | |

The identity of the brothers in Text [1:2"] is introduced as neutral Medium/Theme in clause 1. In clause 2 this identity is implicitly presumed Medium in order to present the identity of the sisters as neutral Range/Theme. In clause 3 the brothers' identity is presumed saliently as *wati kutjara pula* 'they2 two men' and in clause 4, this identity is again presumed with the purpose of the activity *kuka kanyila-ku* 'for wallaby game' as focused Theme. Then

in clauses 5–7 the two identities are backgrounded as Themes by means of additive conjunctions with clitic pronouns *munu-pula* and *ka-pula*.

The text organising function of this hierarchy of Themes is illustrated in the following representation, Figure 3.2. Each message is represented by a box, numbered as in the text, and the prominence assigned to each Theme is indicated by the extent of each box to the left. In addition the identification function of the thematic elements is tracked by the flow diagram to the right.

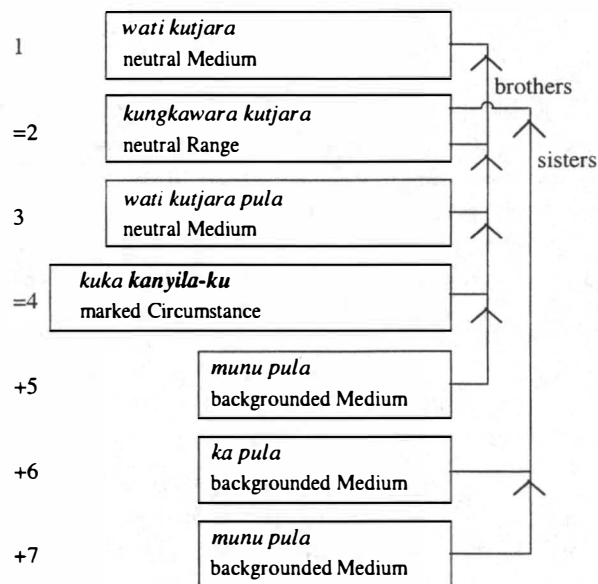


Figure 3.2: Thematic prominence and identification in Text [1:2"]

3.3.4 Logical Themes

In extract [3:12] we looked at a Circumstance/Theme that was used to open a narrative, by grounding it in its temporal context. There is another type of circumstantial Theme that may also anchor a message in its temporal context, but in this case in the temporal unfolding of an activity sequence. However the function of this item is not experiential, but logical. Logical Themes are realised by conjunctive Adjuncts which mark a relation of temporal succession or result between clauses, or stages in a narrative sequence. These adjuncts consist of a personal pronominal group inflected for Location: motion: away from, minimally *palu-languru* 'from that' (see §5.5 CIRCUMSTANTIATION for more detail on this inflection).

The conjunctive Adjunct *palulanguru* may be the Head of the pronominal group, or it may function as a Deictic expanding demonstratives or other nominals as Head. The option as Head is exemplified in [3:17].

[3:17]
1 alatji paluru tjana kuli-ningi
this way they3 were thinking
This is how they were thinking.

- x2 munu palulanguru mala uwankara ngalya-nintiringku-kati-ngu
 and-SM from then after everybody started to learn hither
 And from then, everyone started learning towards what we know now.

As with experiential Themes, the conjunctive Adjunct constitutes the whole of the ideational Theme in clause x2. Everything that follows is Rheme.

The pronominal group may also include demonstrative items as Head, indicating proximity *nyanga* 'here', *pala* 'there', *nyara* 'yonder' [3:18], or anaphoric reference *panya* 'that'.

[3:18]

- 1 ka palulanguru pitja-ngu,
 and-sw from then did come
 So from that time they came.

- x2 nyara palulanguru meeting pulka wangka-ngi
 from that yonder big meetings were talking
 From that point there they were holding big meetings.

Conjunctive Adjuncts that follow clitic Themes become part of the Rheme, as in other clauses with this pattern. In example [3:19] the experiential Theme is realised by the clitic *-la* 'we3', preceding the conjunctive Adjunct *pala palulanguru* 'from that there' as Rheme.

- [3:19] ka -la pala palulanguru nganana starta-ra-lta wangka
 and-sw we3 from that there we3 starting-at that talk
 And subsequently with that we started to talk.

Conjunctive Adjuncts closely resemble experiential Circumstances in that a) they are inflected with a circumstantial suffix meaning place or time, and b) they may be preceded in the Theme with other conjunctions or continuatives. However, their function is logical rather than experiential. Rather than specifying a temporal or spatial location or motion, they realise a general enhancing logical relation that may be interpreted as temporal or causal succession, depending on the context, 'from that event', 'from that cause'. Temporal succession of processes and textual sequence of messages tend to equate in Western Desert discourse; in general a message sequence iconically represents a temporal sequence. So the meaning of *palulanguru* may also be interpreted as textual, 'from that message'.

3.3.5 Textual Themes

So far we have discussed the function of additive conjunctions to simultaneously ground a clause in the context of an activity sequence and the identity of its Medium. Other textual Theme elements include a small set of conjunctions and continuatives. Because they function to link the clause to the preceding discourse, conjunctive and continuative elements also introduce the clause, occurring in first position; first continuatives then conjunctives. These textual elements are inherently thematic. Items functioning as textual Themes are set out in Table 3.4.

Table 3.4: Textual Themes

type	meaning		item
Conjunctions	expanding	additive	<i>ka/ munu</i> 'and'
		clarifying	<i>panya</i> 'that is'
		adversative	<i>palu</i> 'but'
Continuatives	projecting	indicative	<i>panya</i> 'that'
		imperative	<i>ka</i> 'that'
	positive: unmarked		<i>uwa</i> 'yes'
	marked	affirmative	<i>mulapa</i> 'really'
		contrastive	<i>wiya</i> 'no'
		fruition	<i>ngura</i> 'already'
		recognising	<i>muntauwa</i> 'aha'
	negative		<i>wiya</i> 'no'

3.3.5.1 Conjunctions

The general types of expanding conjunctions in Western Desert which realise paratactic interdependency between messages are as follows:

- i) three additives *ka* 'and: switch Medium', *munu* 'and: same Medium: non-contrastive', and *ka* 'and: same Medium: contrastive',
- ii) clarifying *panya* 'that is',
- iii) adversative *palu* 'but'.

There are also two projecting conjunctives:

- i) *panya* 'that' which introduces reported indicative locutions, and
- ii) *ka* which introduces imperative locutions that are quoted by a command.

3.3.5.1a Additive

We have already thoroughly illustrated the roles of additive conjunctions in IDENTIFICATION and THEME. Less frequently, where the Medium of the clause is the same as the preceding Medium *ka* realises contrastive addition. In example [3:20] both functions of *ka* are exemplified. In 1 *ka* functions to switch the Medium to *la* 'we3', while in +2, the identify of Medium is still *la* 'we3', and *ka* realises contrastive addition.

[3:20]

- 1 *ka* _____ *-la* *kuli-ni* *nyanga palu-nya* *piranpa-ku idea pitja-ntja*
 and-sw we3 are thinking this here (is) [[whitefellow's idea coming]]
 And at that point we thought, "This is a whitefellow's idea that's come".
- +2 *ka* _____ *-la* *kuli-ni* *uti* *nganana* *kuli-lku*
 and we3 were thinking clearly we will think
 So we thought, "Clearly we should think about it ourselves".

3.3.5.1b Clarifying

The reference item *panya* ‘that’ is employed as a conjunction to realise clarification. Elaboration is otherwise realised by tone concord, i.e. the tone contour of the message is the same as the preceding message it elaborates. The clarifying role of *panya* is illustrated in the sequence [3:21].

[3:21]

1 *equipment nganana yaltjiyaltji-ngku alpamila-ra ungku-la ungku-ntjaku*,
 equipment we3 how? helping giving to give
 How can we help by sharing equipment?

=2 *panya ngapartji ngapartji* *workari-ntjaku community wingki-ngka*
 that is reciprocally to work in every community
 That so that we can work reciprocally in every community.

=3 *panya tjinguru community kutjupa tjuta-ngku* *machine panya wiru*
 that maybe various communities such good machines

 kanyi-ni
 are having
 That is maybe other communities have such good machines.

3.3.5.1c Adversative

The adversative conjunction *palu* ‘but’ realises counter-expectancy, as in example [3:22].

[3:22]

1 *ngayulu kuli-ni tjinguru nyaa tjukutjuku*
 I am thinking maybe what? not much
 I was thinking maybe what? “This isn’t much.”

“2 *palu watja-nu* *ngura meeting nyanga mala-ngka piruku*
 but did say place after this meeting again

 ngura ngana-la
 at which place?
 But he said “The place after this meeting? At which place will he hold it again?”

3.3.5.1d Projecting: indicative

A reported finite clause is exemplified in [3:23], introduced with the projecting conjunctive *panya*.

[3:23]

α *paluru ngayu-la wangka-ngu*
 she to me did say
 She told me,

“β *panya nyuntu* *Angatja-lakutu a-nu*
 that you to Angatja did go
 that you went to Angatja.

3.3.5.1e Projecting: imperative

The word *ka* may also function as a conjunction in a paratactic projection in which a proposal is projected by another proposal (simultaneously identifying switched Medium), as in example [3:24].

[3:24]

- 1 *ti yai yai ngatji-la*
 DAA beg-!
 Tell DAA (Department of Aboriginal Affairs)
- “2 *ka* *-ni* *mani* *u-wa*
 that (they) me money give-!
 to give me money.

3.3.5.2 Continuatives

Continuatives simultaneously realise textual meaning, linking a message to that preceding, and interpersonal meaning, evaluating the preceding message in terms of polarity. They are thus typically thematic in responding messages in dialogue pairs. Because of their linking and evaluative functions, continuatives tend to be the first Theme element. The basic choice in continuity is thus between yes and no, but yes has a range of possibilities, including unmarked, affirmative, contrasting, fruition and recognising.

3.3.5.2a Positive

Positive continuity is realised by *uwa* ‘yes’, as in the response by B in example [3:25] below. The process A is talking about *kalku-ningi* ‘was promising’, refers to the normative reciprocal behaviour of brothers-in-law, and B affirms this.

[3:25]

- A *kalku-ningi*
 was promising
 He promised.
- B *uwa* *tjaka* *panya*
 yes habit that
 Yes, that’s normal.

3.3.5.2b Negative

Negative continuity is realised by *wiya* ‘no’, illustrated in the response [3:26] A.

[3:26]

- A *nyanga-ngka* *-na* *ngari*
 here I lie!
 May I lie here?
- B *wiya* *ngura nyaratja* *tjitji* *ma-ngari*
 no yonder place child lie away!
 No, lie apart over there, child.

3.3.5.2c Affirmative

Affirmative continuity is realised by *mulapa* ‘really/truly’, as in example [3:27]. In this pair, A observes that *Kata*, the planet Venus, is rising. B misinterprets the word *Kata* for ‘God’, introducing his incredulous question with *mulapa*.

[3:27]

A *kata-nya nyaratja ngara-nyi*
 kata yonder is standing
 The evening star is over there.

B *mulapa* *kat-any* *pitja-nyi*
 really God is coming?
 Really, is God coming?

3.3.5.2d Contrastive

While *wiya* literally means ‘no’, it can also function as a contrastive positive continuative ‘yes indeed’. In example [3:28] the positive comment by A *uwa pala* ‘yes, that’s so’, is affirmed by B, introduced by the contrastive *wiya*.

[3:28]

A *uwa pala*
 yes that
 Yes, there.

B *wiya* *wiru-nya* *palya*
 no good alright
 No, its good, alright.

3.3.5.2e Fruition

The item *ngura* ‘just/already’ may function as a continuative indicating that an event is already underway or completed, as in example [3:29].

[3:29]

A *wala-ngku wangka kunyu*
 quickly say it’s said
 Tell them quickly, they said.

B *ngura* *-na* *panyatja wangka-nyi*
 already I that am saying
 I’ve already told them.

3.3.5.2f Recognising

The continuative *muntauwa* ‘aha/ oh yes’ expresses a surprised recognition of a fact [3:30]. It is derived from *munta* ‘sorry’ and *uwa* ‘yes’.

[3:30]

- A *ngayulu* *ngula* *Intalka-la* *workari-nyi*
 I later at Indulkana am working
 I'm working at Indulkana later.
- B *muntauwa* *ka* *nyuntu* *a-nanyi*
 aha and-sw you are going
 Oh, so you're going?

3.3.6 Interpersonal Themes

Since they function to orient a message within the social context of interaction, interpersonal elements are natural starting points for a message, and frequently occur within Themes, following textual elements but preceding ideational ones. These include items such as modal Adjuncts and Vocatives. There are also a range of elements occurring within Themes that simultaneously realise meanings across metafunctions. These include items combining:

- i) textual and interpersonal meanings such as continuatives,
- ii) ideational and interpersonal meanings such as *Nya*-elements, and
- iii) textual, ideational and interpersonal meanings such as personal pronouns.

The exchange [3:3] exemplifies several of these interpersonal Themes, in almost every clause, as re-presented below.

Text [3:3']	Interpersonal Theme
M1 // <u>wanyu</u> / <u>paka-ra</u> / <u>pitja</u> //	Modal adjunct + implicit personal
'please' getting up come!	
2 // <u>kangkuru</u> / <u>watjalku-na-nta</u> //	Vocative + clitic personal
elder sister will I tell you?	
K1 // <u>nyaa-n</u> / <u>nya-ngu</u> // <u>nyaa</u> // <u>nyaa</u> //	<i>Nya</i> -element + clitic personal
what?-you did see what? what?	
2 // <u>wala-ngku</u> / <u>watja-la</u> //	implicit personal
quickly tell-!	
3 // <u>nyaa-n</u> / <u>wangka-nyi</u> //	<i>Nya</i> -element + clitic personal
what?-you are saying	
M3 // <u>wanyu</u> / <u>puta</u> / <u>pitja-la</u> / <u>nya-wa</u> //	Modal adjunct+ implicit personal
'would you please' coming look-!	

Personal pronouns have been discussed throughout this chapter, and continuatives in the preceding section. Here we will briefly exemplify the interpersonal thematic roles of:

- i) *Nya*-elements that demand information,
- ii) modal Adjuncts, "which express the speaker's judgement regarding the relevance of the message" (Halliday 1994a:51), and
- iii) Vocatives.

These interpersonal functions are discussed more fully in Chapter 4 on Interpersonal Resources. Here we will glance at their potential instantiation as interpersonal Themes.

3.3.6.1 *Nya-elements*

Nya-elements demand the identity of an experiential element such as ‘who, what, when, where, how, why, what doing or what happening’. They are frequently thematic in *nya*-interrogative clauses, since their demands for information are both the interpersonal and experiential point of departure for the message. Thematic *Nya*-elements are exemplified here for a) Process [3:31], b) Medium [3:32], and c) Circumstance [3:33].

- [3:31] *nyaa-ri-nganyi* *awai*
 what-is becoming? hey?
 What’s happening, ay?
- [3:32] *ngana-lu -nta* *pu-ngu*
 who? you did hit
 Who hit you?
- [3:33] *nyaa-ku -n* *wantikati-ngu*
 why? you did leave behind
 Why did you leave it behind?

3.3.6.2 *Modal adjuncts*

Modal adjuncts enable speakers to adjust the force and directness of their propositions and proposals, enabling them to fine-tune the tenor of their relationships. Modal adjuncts that occur thematically include the items tabulated in Table 3.5.

Table 3.5: Modal Adjuncts functioning as Theme

type	value	salient form	clitic	gloss
probability	low	<i>tjinguru</i>	<i>-mpa</i>	‘maybe’
frequency	high median low	<i>titutjara</i> <i>tjuta ara</i> <i>kutjupara</i> <i>kutjupara</i>		‘continually’ ‘usually’ ‘sometimes’
deference		<i>wanyu</i>		‘hang on please’
desire		<i>puta</i>	<i>-wi</i>	‘wishing for’
obligation	high low	<i>uti</i> <i>tjinguru</i>	<i>-mpa</i>	‘clearly’ ‘maybe’
time		<i>kutju</i> <i>kuwari /pa</i>		‘once’ ‘now/soon’
degree	low high:pos high:neg	<i>nguwampa</i> <i>alatjitu</i> <i>wiyatu</i>		‘nearly’ ‘utterly/completely’ ‘not at all’
reality		<i>kutju</i> <i>unytju</i> <i>mulapa</i>		‘only’ ‘just/ transiently’ ‘really’
reportative		<i>kunyu</i>		‘it’s said’

Note that there are clitic forms for three of these types which, like clitic pronouns, may be appended to a salient Theme element and still be part of the Thematic foot.

Where modal Adjuncts are Theme, they follow conjunctions and continuatives, but precede ideational elements. If they follow the ideational Theme they are part of the Rheme. The preceding examples illustrate various modal Adjuncts as Theme elements.

3.3.6.2a *Probability: salient*

- [3:34] panya tjinguru anangu kutjupa tjuta-ngku tool panya wiru kanyi-ni
 that maybe various people such good tools are having
 That is maybe some other people have such good tools.

- [3:35] tjinguru -na anku-ku
 maybe I will go
 Maybe I'll go.

3.3.6.2b *Probability: clitic*

- [3:36] ngula -nti pitja-ku
 later maybe will come
 Later probably he'll come.

3.3.6.2c *Obligation: median*

- [3:37] uti nganana kuli-lku
 clearly we will think
 Clearly we should think about it.

3.3.6.2d *Degree*

- [3:38] nguwampa ma-tjarpatju-nu palu-nya
 nearly away-did put in her
 It nearly dragged her inside.

3.3.6.2e *Deference*

- [3:39] wanyu puta pitjala nyawa
 'would you, please' coming look!
 Would you please come and look?

3.3.6.2f *Desire*

The clitic item *wi* expresses the speaker's desire, 'I wish'. It is typically appended to the final Theme element, and often occurs in the same context as *wanyu*.

- [3:40] wanyu ngali -wi ana-ma
 'please' we two I wish go-!
 Please, I'd like us to go.

3.3.6.2g Report

The reportative adjunct *kunyu* transfers responsibility for the validity of the message away from the speaker. Although it tends to fall on the boundary of Theme and Rheme, following the Medium, it may also be part of the Theme.

- [3:41] *ka kunyu kangkururara panya kutjara* *tjawa-ningi*
 and-sw it's said those two sister-pair were digging
 And it's said those two sisters were digging.

3.3.6.3 Vocatives

Like *Nya*-items and modal Adjuncts, Vocative elements may be either Thematic or not. Where they are part of the Theme, they tend to occur in first position, typically spoken on a separate tone group. Thematic Vocatives are exemplified here for kinship terms [3:42], proper names [3:43], common nominals [3:44].

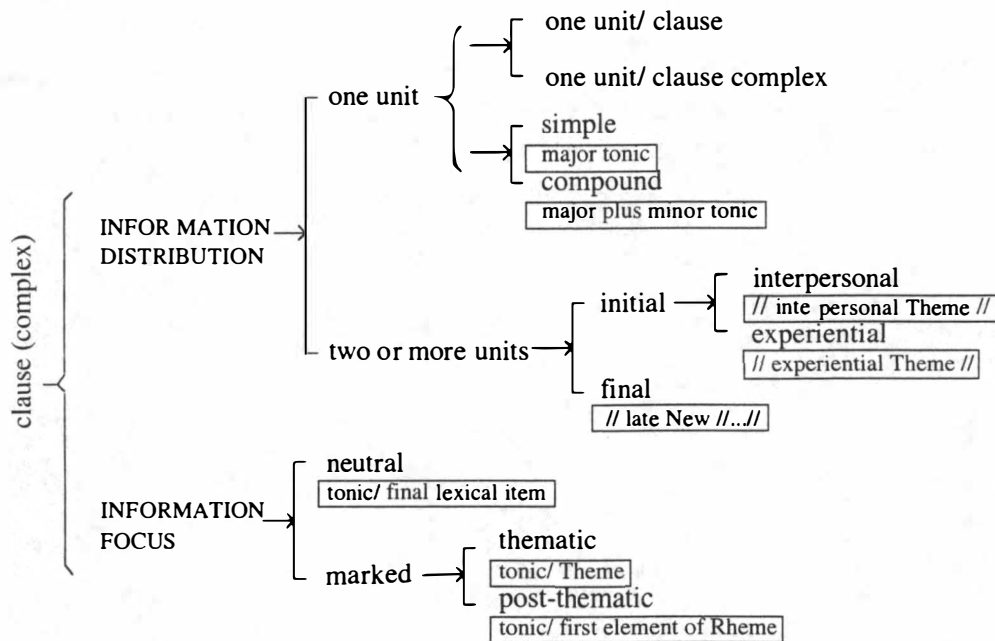
- [3:42] // *kangkuru* // *watja-lku-na-nta* //
 elder sister will I tell you?
 Sister, shall I tell you?
- [3:43] // *Kutjukuru* // *mayi -ni* / *u-wa* //
 Kutjukuru food me give-!
 Kutjukuru, give me food!
- [3:44] // *wati* / *wiru* // *meetingi* / *kuwari* //
 man good ! meeting now
 Good man, there's a meeting soon.

This concludes the discussion of resources in THEME.

3.4 INFORMATION

Patterns of information in Western Desert clauses are realised by the distribution and focus of tone groups on which clauses are spoken. Information resources consist of two sets of variables, INFORMATION DISTRIBUTION, and INFORMATION FOCUS. INFORMATION DISTRIBUTION is realised by the phonological system of TONALITY, which is the set of options for mapping of tone groups onto clauses. INFORMATION FOCUS specifies where each element of New information falls in the clause, realised by the phonological system of TONICITY, which is the set of options for choosing the foot with tonic focus within the tone group.

The default option in TONALITY is one tone group to the clause, but there may be two clauses to the tone group, or up to three tone groups to a clause, with an interpersonal or experiential Theme, or late New elements on separate tone groups. In addition there may be a minor tonic focus following the major tonic focus in one tone group. The default option in TONICITY is tonic focus on the final lexical element in the clause, but it may also fall on the Theme of the clause, or the first element of the Rheme. These general options for information distribution and focus in the clause are set out in System 3.5.



System 3.5: Information distribution and focus in the clause.

Halliday (1994a:274–275) describes the discursive functions of these resources as follows:

Spoken discourse takes the form of a sequence of information units, one following the other in unbroken succession with no pause or discontinuity between them... An information unit does not correspond exactly to any unit in the clause grammar. The nearest grammatical unit is in fact the clause; and we can regard this as the unmarked or 'default' condition: other things being equal, one information unit will be coextensive with one clause... Information, as this term is being used here, is a process of interaction between what is already known or predictable and what is new or unpredictable.

Each tone group consists of at least one complete foot, i.e. a foot with a salient first syllable. Where there is more than one foot, one foot will be the Tonic foot (i.e. receiving the tonic focus) realising the element of New information; and one or more other feet will realise Given information. Those feet preceding the tonic foot are Pretonic. This system is virtually identical to that of English, of which Halliday's (1967a) summary is equally applicable to Western Desert:

In any tone group, if there is only one complete foot this must always be an exponent of the tonic. If there are two or more complete feet, the tonic may start at the beginning of any one of them - that is, at any salient syllable; and if there are any complete feet preceding the one at which the tonic begins, the tone group has a pretonic as well as a tonic element. Syntagmatically there are only two places in the tone group where tone contrasts can be made, one obligatory (the tonic) and one optional (the pretonic); primary tone contrasts are carried by the tonic, and distinct sets of secondary contrasts both by the tonic and pretonic. No further contrasts can be made after the tonic syllable; everything following this forms part of the tonic, and has its pitch movement determined entirely by the tonic.

In general, the survey here only goes as far in delicacy as primary tone; secondary tones of the pretonic are only identified where particularly relevant to general semantic contrasts. Options in tone contours are discussed in detail in the context of interpersonal meanings in Chapter 4 and clause complexing in Chapter 6. Here I will limit the discussion to TONALITY and TONICITY, except where tone contrasts are significant for textual meaning. In the examples below, the element carrying tonic focus is highlighted in **bold**.

3.4.1 INFORMATION *distribution*

The unmarked option in TONALITY is one tone group to the clause, and marked options include more than one tone group to the clause and more than one clause to the tone group.

3.4.1.1 *Two clauses to one information unit*

A tone group spreads over two clauses either in hypotactic clause complexes of expansion or projection, or in paratactic projections (i.e. 'quoted speech/ thoughts'). In hypotaxis, where the dependent clause precedes the dominant clause, it is typically pretonic. Example [3:45] shows the default pattern with two tone groups, while the remaining examples illustrate one tone group for expansion and projection.

3.4.1.1a *Two units/clause complex*

[3:45]

α // \wedge *ka* / *ngura kutjupa* / *tjuta-ngka* / *wati kutjupa* / *tjuta-ngku* /
and in various places various men

kuli-ni / *wati* / ***kutju*** //
were thinking one man

β // ***mantji-ntjikitja*** / *waru palu-nya* //
to get that fire

3.4.1.1b *One unit/clause complex*

[3:46] hypotactic expansion: purpose

β // *mina* / *puyi-ntjikitja* / α ***ila-ri-nganyi*** //
water to rain-SM is becoming near
Rain is approaching.

[3:47] hypotactic expansion: time

β // \wedge *ka* / *nganana* / *tungunpungku-la* / α ***pulkara*** / *tjana-la* //
and we disagreeing, strongly to them
/ *wangka-ngi* //
were talking

And disagreeing with them, we were talking strongly to them.

[3:48] hypotactic projection: mental

α // ngayulu / kuli-ni / 'β ini kutjupa / tjungku-ntjikitja //
 I am thinking different name to put-sm
 I was thinking of giving it a different name.

[3:49] hypotactic projection: verbal

α // paluru / ngayu-nya / watja-nu / "β ngura-ngka / nyina-ntjaku //
 he me did tell in camp to sit-sw
 He told me to stay in camp.

In paratactic projection, the projecting clause always comes first and the clause complex is normally spoken on one tone group.

[3:50] paratactic projection: verbal

1 // ^ munu -la / watja-nu / "2 nganampa / ngura / tju-ra //
 and we told our communities set up-!
 So we told them to set up our communities.

[3:51] paratactic projection: mental

1 // ^ munu / paluru / nya-ngu / "2 nyaa / nyangatja / pupa-nyi //
 and she did see what? this is crouching
 And she saw, "What is this?"

The semantic effect of spreading the tone group over the whole clause complex is to code it as a single message, in which the projecting or β expanding clause is Theme, and the projected or α expanded clause contains the New information. This effect may be spread over more than two dependent clauses in a sequence, as in example [3:52] (from the example of dependent clause 'chaining' given in Text [1:3] above).

[3:52]

δ // ^ munu pula / ngari-ntjanu-ngku //
 and they2 after sleeping
 And after sleeping,
 // γ pungku-la / β antjakaringku-la / α wirkati-ngu //
 striking camping out did arrive
 hunting some more, and camping out again, they finally arrived.

3.4.1.1c 'Stepping' pre-tonics

In series such as in example [3:52] above, the pretonic elements are spoken on a 'stepping' secondary tone, that steps down on each element. This is also the pretonic pattern where there are two or more complex nominal groups in the pretonic, as in example [3:45] above / ngura / kutjupa / tjuta-ngka / wati / kutjupa / tjutangku /.

Example [3:53] illustrates the same stepping rhythmic pattern, first with a series of dependent clauses in 1 / pampa-ringku-la / tjilpi-ringku-la /, and secondly with a series of elements within a single pronominal group in 2 / pakali / tjuta-ngku / katja / tjuta-ngku / puliwiri-ngku / untalpa-ngku tjana /.

[3:53]

1 // ^ palu tjinguru / nganana / pampa-ringku-la / tjilpi-ringku-la
 but maybe we3 becoming old women becoming old men

/ *wiya-ringanyi* //

are finishing

But perhaps as we become of women and old men, we'll pass away.

+2 // [^] *ka* / *piruku* / *pakali* / *tjuta-ngku* / *katja* / *tjuta-ngku*

and-sw further many grandsons many sons

/ *puliwiri-ngku* / *untalpa-ngku tjana* / *artunmana-nyi* //

grand daughters daughters they³ are taking care

So our grandsons, sons, grand daughters and daughters will take care (of our land).

3.4.1.1d *Stepping rhythm within the group*

The same stepping pattern is also a feature of iterated non-finite processes in circumstances of Duration, such as / *tjulyara* / *wanara* / *tjulyara* / *wanara* / in clause [3:54] (from Text [3:5]).

[3:54] // [^] *ka ya* / *palu-nya* / *putu* / *mantji-ra* // *tjulya-ra* / *wana-ra* / *tjulya-ra* /

and they it unable getting snatching following snatching

wana-ra //

following

And they were unable to get it, snatching and following continually.

Although this feature is late New in this clause, on a separate tone group, there is no tonic focus, rather the stepping tone descends over the whole tone group with no culmination. Such a feature may also precede the tonic of the main tone group of the clause, in which case it is part of this tone group, as with the features in example [3:53], clauses 1 and 2. In these groups the stress pattern steps along the group and culminates in the tonic finite process that follows it.

Within nominal groups, on the other hand, there may be an internal culminative stress pattern. This creates a strong internal rhythmic cohesion in the group, marking it phonologically as a grammatical unit.

3.4.1.1d (1) *Stress on personal deictic*

/ *nyuntu* / *nganana* /

/ *Sammy-nya* / *Ngumula-nya* / *Kunmanara-nya* / *tjana* /

/ *nyanga* / *palu-nya* /

3.4.1.1d (2) *Stress on demonstrative deictic*

/ *ngura* / *nyanga-ngka* /

/ *wati* / *nyara-ngku* /

3.4.1.1d (3) *Stress on head*

A demonstrative may precede the Head so that the stress falls on the Head rather than the Deictic, e.g.:

/ nyanga / **ngura-ngka** /
 / nyara / **wati-ngku** /

The final stressed foot also has the option of becoming the tonic foot in a whole tone group.

3.4.1.2 Two or more information units to one clause

There are three general conditions in which a clause is spoken on more than one tone group. Firstly interpersonal Themes may be spoken on separate tone groups, which enables them to have a different tone contour from the clause as a whole. Secondly the experiential Theme of the clause may be on a separate tone group, particularly when it is a Circumstance whose significance is thus emphasised. Thirdly an additional element may follow the clause as a 'late New'. These include re-stated (clarifying) identities of participants or circumstantial elements.

3.4.1.2a Interpersonal theme

One of the most common interpersonal Themes with separate tone groups are Vocatives, which we have already exemplified in §3.3.6.3 above (see §4.8 for more details on the independent tone contour potential of Vocatives). However other interpersonal Themes may also be spoken on separate tone groups. Example [3:55] below shows the imperative verb *nyawa* employed metaphorically as an interpersonal Theme to focus on the interpersonal message of inability in the clause.

[3:55] // nyawa // tjana / putu / kunyu / waru / mantji-ningi //
 look, they unable it's said fire were getting
 Look, it's said they were unable to make fire.

(Note the secondary tonic on the final lexical item *mantji-ningi*. This complex tone group is discussed below.)

3.4.1.2b Experiential theme

Experiential Themes spoken on separate tone groups are relatively infrequent, and so have the effect of marking the message as especially significant. Example [3:56] is the opening line from Text [3:8], marking the temporal context for the following narrative.

[3:56] // tijji / tapalyu / nyina-ntja time // paluru tjana / panya / pitjala
 [[DCW sitting]] time those they3 coming
 / tjapi-ningi
 were asking

In the time that DCW were there, those ones were coming and asking us.

Note also here that this Theme consists of a nominal group containing an embedded clause as Qualifier *tijji tapalyu nyina-ntja* '[[that DCW was here]]'. Embedded clauses ('defining relative' or so-called 'adjectival' clauses) are spoken on the same tone as the nominal groups of which are constituents.

3.4.1.2c *Late New*

Late New is a major feature of clauses in Western Desert. There may be one or two elements following the Process on a separate tone group, with culminative focus. These elements are commonly labelled an ‘afterthought’ structure in formalist descriptions, as though the speaker needed to correct their utterance. However they are anything but ‘afterthoughts’, and serve a similar function to group-rank qualifying phrases and groups in English, which are also frequently late New. In Western Desert this qualifying function is performed at clause rank, by discrete constituents. The simplest experiential function of this textual resource is simply repetition of an element, as in example [3:57].⁵

- [3:57] // *pala* / *munkarra* / *waakari-nyi* // *munkarra* //
 there other side is working other side
 There on the other side he’s working, on the other side.

More often late New is used to qualify a participant, circumstance or process. This is exemplified for circumstances of Place in [3:58]. In this case a Place *nyara-ngka* ‘there’ is qualified as a more specific Place *urilta* ‘on the outside’.

- [3:58] // *tjinguru* / *nyara-ngka* / *nyina-nyi* // *urilta* //
 maybe here is sitting outside
 Maybe it’s here, on the outside.

In example [3:59] it is the Range *waru kurakura*, that is qualified by the late New circumstance *tili maru-tjara* with a circumstance of Accompaniment.

- [3:59] // ^ *munu-ya* / *paluru tjana* / *waru* / *kurakura* / *kanyi-ningi*
 and-they those ones useless fire were having
 // *tili maru-tjara* //
 with black brands
 And those people had useless fire with black firebrands.

In English, because the Range follows the Process, a late New qualifying element is structurally contiguous with it. This means that the New element functions experientially as a group-rank Qualifier, as in the translation of example [3:59] below.

- [3:59'] // they had / useless **fire** // [with black **brands**] //

This experiential function of ‘qualifying’ is handled in English at group rank, as an embedded circumstance (Halliday 1994a:187–188) or elaborating group in a nominal group complex (pp. 274–276). Another example of participant qualification is example [3:60] where the Receiver *tjana-la* ‘to them’ is clarified as *piranpa tjuta-ngka* ‘to the whites’ (for definition of Receiver see §5.3.1 below).

- [3:60] // *pulkara* / *tjana-la* / *wangka-ngi* // *piranpa tjuta-ngka* // *nganampa*
 strongly to them (we) were talking to the whites for our
manta-ku //
 land
 We were talking strongly to them, to the whites for our land.

⁵ On the late New pattern, see also Heath (1984), discussed below in fn. 2, Chapter 6.

In the English translation of example [3:60], *the whites* elaborates *them* at group rank, within the prepositional phrase *to them, the whites*, [3:61].

[3:61] // we were talking / **strongly** to them // the **whites** // for our **land** //

In addition to the Receiver, the whole of clause [3:60] is qualified with Behalf *nganampa manta-ku* 'for our **land**'. In both the Western Desert and English clauses, this element functions as a second late New, an additional discrete clause constituent. However, in Western Desert qualifying elements are always separate clause constituents, enabling them to be focused culminatively as late New, without being contiguous with the element they qualify.

Because the late New and the element it qualifies are not contiguous, qualifying elements are inflected to identify which participant they qualify: Medium or Range. In examples [3:59] and [3:60] the late New qualifies a Range, *waru kurakura* and *tjana-la* respectively. In example [3:60] the participant qualified is identified as Receiver by the LOCATIVE inflection *piranpa tjuta-ngka*. In example [3:59] the qualified participant is identified as Range with NEUTRAL inflection, distinguishing it from the Medium, i.e. it qualifies *waru kurakura* [Range], not *paluru tjana* [Medium].

In example [3:62] below, the late New is a Quality *rawa-ngku* 'continuously' that does qualify the Medium (the implicit 'he'). The Quality is marked as ACTIVE to indicate that it qualifies the Medium in this transitive clause, and not the Range *uwankara* 'everything'.

[3:62] // *nyara / palulanguru / watja-nu / uwa* // *uwankara / kati-ntjaku*
 from that there said "yes" everything to take-sw
 // *rawa-ngku* //
 continuously
 From that time he said, "Yes", to take everything back continuously.

Elaborating circumstances, including Quality, Role and Comparison, qualify either the Range or the Medium. For example the Medium may be inflected as ACTIVE if the clause is transitive, and NEUTRAL if it is intransitive. In example [3:62] above, the late New *rawa-ngku* qualifies a transitive Medium with an ACTIVE inflection. In example [3:63] below, *titutjara* 'continuously' qualifies an intransitive Medium, with NEUTRAL inflection.

[3:63] // [^] *ka / paluru / a-nangi / alatjitu* // *tjitutjara* //
 and he was going absolutely continuously
 And he kept going continuously.

Of course these qualifying elements need not be late New. They may be contiguous with the participant they qualify and not focused, but they are still separate clause constituents, such as *kuranyu-ngku* in example [3:64].

[3:64] // *palu / ngayulu / kuranyu-ngku / nyaku-ntja wiya* //
 but I at first didn't see
 But at first I didn't see.

As we saw in example [3:60] above, it is also possible for there to be two late News to a clause. In example [3:60] the first late New clarifies the identity of the Receiver, while the second is a circumstance of Purpose. This potential is not limited to process clauses. Example [3:65] illustrates how an attribute can be clarified over two late News.

[3:65] // *munga purunpa* // *maru-ngka* // *munga / maru-ngka* //
 (it was) like night in the dark in the dark night

3.4.1.2d Complex tone group

Where the primary tonic focus is at, or close to the beginning of a tone group, there is a potential option for a secondary tonic. The typical function of this resource is to identify a participant, particularly Medium, that follows the process instead of preceding it. Generally this identity is already given in the context, but may need to be made explicit in the clause. In this case the secondary tone is always level, Tone 3, while the primary tone is Tone 1 or Tone 5. This pattern is exemplified for Medium in [3:66] and [3:67], and Process in [3:68].

[3:66] // *nyaratja-lta* / *nyina-nyi* / *paluru* //
 yonder-that is sitting it
 It's over there.

[3:67] // *manta wingki-ngka* / *kunyu* / *nyina-ngi* / *anangu* / *tjuta* //
 in all lands report were sitting many people
 In all the lands, it's said, the people were living.

[3:68] // *nyawa* // *tjana* / *putu* / *kunyu* / *waru* / *mantji-ningi* //
 look, they unable it's said fire were getting
 Look, it's said they were unable to make fire.

3.4.2 INFORMATION FOCUS

Each tone group realises a unit of information, consisting of one obligatory New element and optional Given elements. The New element is realised by the tonic focus, i.e. the foot carrying the major pitch movement of the tone group. The neutral term in TONICITY is the tonic focus on the **last lexical element in the tone group**, so that the New element follows any Given elements. When TONALITY is also neutral, this means the last lexical item in the clause, i.e. the unmarked position for information focus is at the end of the clause. So the typical pattern of information focus is **culminative**; any other position of the tonic focus is a marked option in TONICITY that realises contrastive information focus.

3.4.2.1 Text examples of information focus

The culminative structure of TONICITY is well illustrated in Text [3:5]. In every clause there is tonic focus on the last **lexical** item. Items that follow the tonic focus are all grammatical, including the reportative particle *kunyu*, suffixes of location *-ngka* and comitation *-tjara*, and relational verbs *nyina-* 'sitting' and *kanyi-* 'having' (see §5.4 below for more detail on relational processes).

Text [3.5] extract: with tonic focus

- 1 // *tjukurpa* / *kunyu* //
 myth it's said
- 2 // *anangu* / *tjuta* / *nyina-ngi* / *manta* / *nyanga-ngka* //
 many people were sitting in this land
- 3 // *manta* / *wingki-ngka* / *kunyu* / *nyina-ngi* / *anangu* / *tjuta* //
 in all lands it's said were sitting many people

- 4 // ^ munu-ya / paluru tjana / waru / **kurakura** / kanyi-ningi
and-they those ones useless fire were having
// tili / **maru-tjara** //
with black brands
- 5 // tili / **maru-tjara** / kunyu / nyina-ngi //
with black brands it's said were sitting
- 6 // **nyawa** // tjana / **putu** / kunyu / waru / **mantji-ningi** //
look! they unable it's said fire were getting
- 7 // **munga purunpa** // **maru-ngka** // munga **maru-ngka** //
(it was) like night in the dark in the dark night
- 8 // ^ munu / tjana-ya / **watarku** / nyina-ngi //
and they-they ignorant were sitting

In addition to the neutral final tonics in Text [3.5], we can also see several marked examples. In clause 3 the Location from the previous clause is elaborated as a marked Theme with tonic focus *manta winki-ngka*. Likewise in clause 5 the Accompaniment *tili maru-tjara*, is picked up from the preceding late New and re-stated as a marked Theme. In clause 6 there is marked focus on the inability particle *putu*, immediately following the Theme-Rheme boundary. In each of these cases however, the pattern of clause-final unmarked focus still holds. In 5 *tili maru-tjara* is both Theme and the last lexical item in the clause, since the Medium is implicit, and the items that follow it are grammatical *kunyu* and *nyinangi*. Both 3 and 6 also have a minor tonic focus at the end of the clause, the Medium of 3 *anangu tjuta* and the 'unsuccessful' Process of 6 *mantji-ningi*. In both these clauses, the major focus comes first on the New element and the minor focus follows on a Given element: *anangu tjuta* is repeated from the preceding clause and *waru mantji-ningi* re-states the meaning of *waru kurakura kanyiningi* from clause 4.

Clauses 4 and 7 also have additional late New elements, that follow the main tonic focus of the clause on separate tone groups. Note that the tonic focus in these nominal groups falls on the last lexical element of the group, e.g. in 4 *tili maru-tjara*, and in 7 *munga maru-ngka*. The next phase of Text [3:5] is presented as follows, with tonic focus marked.

Text [3.5] continued

- 9 // ^ ka / kunyu / wati kutju-ngku / Kipara-ngku / tili **wiru-tjara-ngka** / nyinangi //
and it's said one man Kipara with good firebrands was sitting
- 10α // ^ ka / ngura / kutjupa / tjuta-ngka / wati / kutjupa / tjuta-ngku / **kuli-ni** / wati
and in many different places many different men are thinking one
kutju //
man
- β // **mantjin** / tjikitja / waru / palu-nya //
to get that fire
- 11 // ^ ka -ya / palu-nya / **putu** / mantji-ra // tjulya-ra / wana-ra / tjulya-ra / wana-ra //
and they it unable getting snatching following snatching following
- 12 // wati / kutjupa / tjuta-ngku / tjulya-ningi / **putu** //
many different men were snatching unable

- 13 // [^] ka / *tjilka-ri-ngu* //
and did become *tjilka*
- 14 // *tjilka-rara* / *alatjitu* / *kati-ngu*
tjilka group exactly did bring

In 9 a new identity is presented as marked Theme, *wati kutju-ngku Kipara-ngku*, and the tonic focus is on the quality of the Kipara's fire *tili wiru-tjara* 'with good brands'. In 10 the identity switches back to *wati kutjupa tjuta-ngku*, and the focus is on their desire for the fire *kuli-ni...mantji-ntjikitja* 'thinking of getting' it. In 11 and 12 the focus is on their inability to do so *putu* as in clause 6 above. Finally in 13 and 14, the consequence of the activity sequence is focused *tjilka-ri-ngu* 'it became the *tjilka*', and intensified *alatjitu* 'absolutely/exactly'. All of these tonic foci are culminative, except for 10 α and β in which Given items follow, and 11 where a serial Duration follows as late New. In 9 and 14 the processes *nyinangi* and *katingu* are non-focused grammatical items.

3.4.2.2 Unmarked thematic focus

There are two environments in which tonic focus typically falls on experiential Themes, both of which are exemplified in Text [3:3]. These environments are *nya*-questions and commands, exemplified here as [3:69] and [3:70] respectively.

- [3:69] // *nyaa-n* / *wangka-nyi* //
what?-you are saying
- [3:70] // *wanyu* / *puta* / *pitja-la* / *nya-wa* //
'would you please' coming look-!

In example [3:69] it is the *Nya*-element that is thematic; in example [3:70] it is the Process. The reason that these are often thematic is that the element of information or the process that is demanded are the natural starting points for the message. *Nya*-elements are always focused as New, because the identity demanded is precisely the New information, both of the question and the response (see the exchange pair (14) and (15) reviewed in §A.2.6 below). Because the *Nya*-element is also the interpersonal context for the clause, it naturally tends to be Theme as well. In imperatives, the Process, and its Range or Circumstance, are typically New, since the identity of the Medium, i.e. the addressee, is inherently Given. Again the interpersonal context for the message is the service demanded, so the New elements are also typically Theme, with the Medium implicit.

3.4.2.3 Indeterminacy in the domain of New

Although the tonic focus falls on the last lexical item in a structure, other elements of New information may precede the tonic focus. In the late New of clauses 4 and 7 in Text [3.5] above, it is the Modifier *maru* 'black' that is focused, but the preceding Head it modifies *tili* 'firestick' or *munga* 'night' is also part of the New. This pattern may also extend beyond groups to include other experiential elements. An example is from Text [1:2], presented here as example [3:71].

[3:71]

4	// ^ <u>ka</u> <u>pula</u>	/ mai-ku /	tjaru-ukali-ngu //
	and-SW they 2	for food	did descend down
	Given	<---	New
5	// ^ <u>munu</u> / <u>pula</u>	/ mai ili	/ ura-ningi //
	and-SM they 2	fig food	were collecting
	Given	<---	New

In both clauses 4 and 5, the Process is focused, but the wave of New information also includes the element immediately preceding the Process: in 4 the Purpose *mai-ku*, and in 5 the Range *mai ili*. The beginning of the New is structurally indeterminate, but is generally clear from the context. In 4 *mai-ku* 'for vegetable food' is New because it contrasts with the preceding *kuka kanyila-ku* 'for wallaby game'. In 5 *mai ili* 'fig food' is New because it specifies the type of *mai*.

This is an important clue as to why the Process is frequently clause-final in so-called 'SOV' languages such as Western Desert, with Range or Circumstance either preceding it or following it as late New. It is because it is the Process that is typically the significant New information in each step of an activity sequence, but not it alone because the Range + Process or Circumstance + Process configuration together constitutes the New activity.

3.4.2.4 Tonicity wave: thematic and culminative elements

Using the diagrammatic modelling of tonicity waves developed in §2.5 above, it is possible to represent visually Halliday's description of spoken discourse which "takes the form of a sequence of information units, one following the other in unbroken succession". Figure 3.3 represents the continuous tonicity wave of Text [3:5]. Each constituent in the presentation is an element of Given or New information, with tonic feet shown as peaks of informational prominence.

The undulating culminative presentation of information is clearly displayed by the diagram. Wave peaks are tonic New elements; troughs are pretonic or post-tonic Given or grammatical elements. The information units that make up the tonicity wave can be further grouped into information unit complexes, or **information groups** spread over one or more tone groups/clauses.

Information groups include lines 2–3, 4–5, 6, 7–8, 9, 10, 11–12 and 13–14. Each of these information groups is a strongly cohesive unit, both phonologically and semantically. Within each information group there is one thematic experiential concept, and one culminative concept. Either of these may be iterated, and they may be conflated, where the Theme is also New.

In 2–3 the thematic element is *anangu tjuta*, and the culminative element is *manta nyangangka/ manta winki-ngka*. In 4–5 *anangu* are again thematic and *waru kurakura/ tili maru-tjara* is culminative. In line 6 *anangu* are thematic and *putu waru mantji-ningi* is culminative. In 7–8 the resulting qualities *munga purunpa...watarku* are emphasised as both thematic and culminative. In line 9 the Theme switches to *wati kutju Kipara* and *tili wiru* is New. In 10 the *wati tjuta* are thematic and their desire *kulini mantji-ntjikitja* is culminative. In 11–12 they are again thematic and their frustration *putu mantjira...tjulya-ningi putu* is culminative. In 13–14 the resulting inception of the *tjilka* is emphatically both thematic and culminative. These patterns of Themes and News are re-presented in Table 3.6.

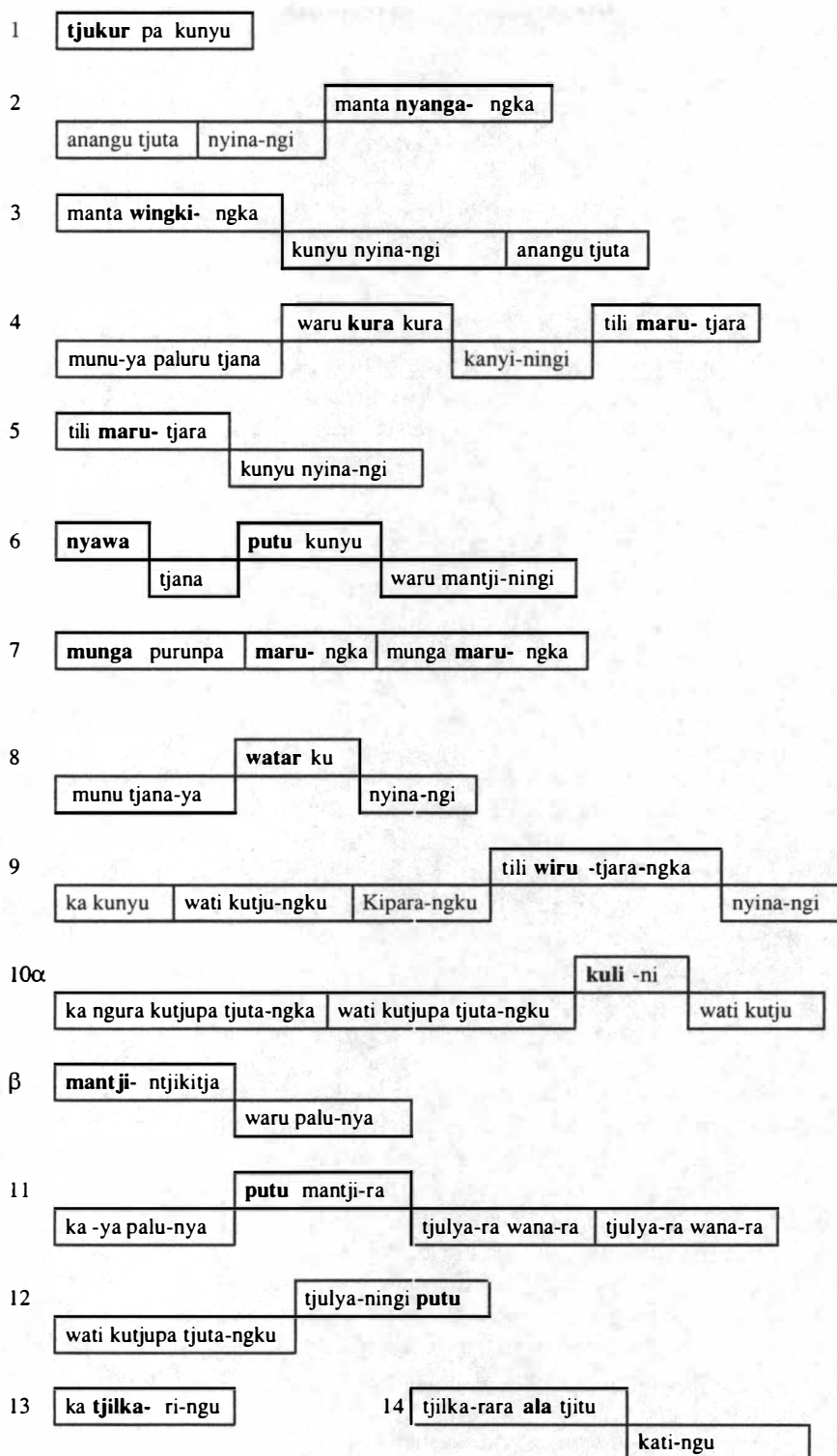


Figure 3.3: Tonicity wave of Text [3:5]

Table 3.6: Thematic and culminative elements of information groups in Text [3:5]

	Themes	News	discourse function
2–3	<i>anangu tjuta</i> 'the people'	<i>manta nyanga-ngka...manta winki-ngka</i> 'in this land...in all the land'	setting in time and place
4–5	"	<i>waru kurakura...tili maru-tjara</i> 'useless fire...with black brands'	the people's lack of fire
6	"	<i>putu waru mantji-ningi</i> 'unable to get the fire'	their inability to get the fire
7–8	<i>munga purunpa, munga maru-ngka...watarku</i> 'like night, in the dark night...in ignorance'		consequence: living in the dark, in ignorance
9	<i>Kipara-ngku</i> 'only Kipara'	<i>tili wiru-tjara-ngka</i> with good firebrands'	Kipara's possession of fire
10	<i>wati kutjupa tjuta</i> 'great many men'	<i>kulini wati kutju...waru palu-nya</i> 'thinking of this one man...of that fire'	men's desire to get the fire
11–12	"	<i>putu mantji-ra...tjulya-ningi putu</i> 'unable to get it...unsuccessfully snatching'	frustrated attempts to get it
13–14	<i>tjilkaringu...tjilkarara alatjitu</i> 'this became the tjilka...the tjilka group itself'		consequence: transformation as the tjilka ceremonies

The presentation in Table 3.6 enables us to unpack the discourse semantic function of the tonicity wave within this traditional Western Desert narrative. Within each information unit complex, the tonicity wave presents two quanta of information as a cluster of i) thematic and ii) culminative elements. The human actors in this drama are persistently thematic, while the plot unfolds as New elements of each unit. While the waves of Theme present and presume the actors, the waves of New information construct the unfolding logic of the plot. Each information wave begins with orienting New elements such as locations, things and qualities (2–3, 4–5, 9), followed by a New process involving them (6, 10, 11–12), and culminates in a consequence that is marked as both Theme and New (7–8, 13–14). The logogenesis of the text unfolds as an interaction between thematic persistence and culminative change.

In sum the tonicity wave organises two further levels of information above the tone group, in the discourse semantic stratum. The first is the information group which presents a coherent cluster of thematic and culminative elements. Information groups then function as constituents of a larger culminative structure I have called an **information wave**. A text consists of a series of such information waves.

We can present the structural potential of the whole pattern using the same wave-particle symbols as for the phonological ranks, as in Figure 3.4. Here the core structure of a narrative sequence is Action ^ Consequence, where the information group functioning as Consequence is marked as prominent by tonic focus on its Theme. In various story genres there may be more than one information group functioning as Action (i.e. a sequence of Actions), and the structure is typically pre-modified by one or more elements functioning as Orientation. (There may also be post-modifying elements such as Coda, not represented in Figure 3.4).

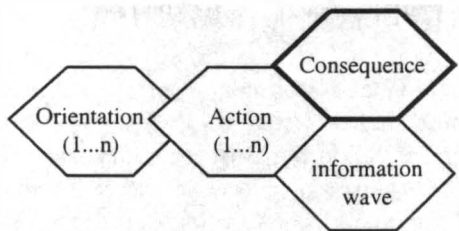


Figure 3.4: Culminative structure of an information wave in Western Desert narrative

The information wave structure of Text [3:5] is presented in Figure 3.5. It consists of two waves of Orientations, Action and Consequence. Each of these elements is realised as an information group in the text. The Consequence is realised by a marked information group (i.e. where New is conflated with Theme), and presented as the peak of the wave. The New elements of each information group are presented in each cell of the diagram. In addition, participants functioning as Medium and Theme in each information group are presented and underlined.

			<i>munga</i> <i>purunpa...watarku</i>
<u><i>anangu tjuta</i></u> <i>manta nyangangka</i> <i>manta winki-ngka</i>	<u><i>anangu tjuta</i></u> <i>waru kura</i> <i>tili maru-tjara</i>	<u><i>anangu tjuta</i></u> <i>putu waru</i> <i>mantji-ningi</i>	Consequence
Orientation 1	Orientation 2	Action	
			<i>tjilkaringu...tjilkara alatjitu</i>
<u><i>wati kutju</i></u> <i>tili wiru-tjara</i> <i>ngka</i>	<u><i>wati tjuta</i></u> <i>kulini mantji</i> <i>ntjikitja</i>	<u><i>wati tjuta</i></u> <i>putu mantjira...</i> <i>tjulya-ningi putu</i>	Consequence
Orientation 1	Orientation 2	Action	

Figure 3.5: Information wave structure of Text [3:5]

Comparable levels of periodic structures, above the tone group/information unit, have been described by Pike (1982, 1983), Van Leeuwen (1982, 1985, 1993), and Martinec (1995). Martin (1992) also describes the culminative structures, and text organising functions, of ‘hyper-New’ and ‘macro-New’ in written English text. Martinec (1995:44–43) describes seven levels of phonological waves. He summarises the functions of four of these levels, including ‘rhythm group’, ‘information unit’, ‘sequence’ and ‘paragraph’, as follows:

The primary accent in a rhythm group attracts the listener’s attention to the information point in a move or information unit, which needs to be stored in memory for the next-higher level of processing, that of the sequence. The most prominent group in a sequence attracts attention to the move that needs to be stored for the paragraph-level of processing. The most prominent sequence in a paragraph attracts attention to the sequence-level move which needs to be stored for the paragraph-level processing.

These four levels are referred to in the *Western Desert Code* above, as stress wave, tonicity wave, information group, and information wave respectively. However the cognitive metaphors of 'attracting attention' and 'storing in memory' may not be sufficient descriptions of their function. Edelman's theory of value-categorisation (1992) expands our understanding of memory and attention, by recognising the role of adaptive value ascribed to mental categorisations by the brain's limbic system. For example, a categorisation, whether perceptual or semantic will become a short- or long-term memory, and interact with other memories, according to the adaptive value it is assigned by the limbic system, i.e. its potential value in the organism's survival. It is through such processes that learning has evolved. Adaptive values may be experienced as various types and degrees of affect, positive or negative. In people, these affective values are associated with interpersonal relations, and so are realised comprehensively in language (see Chapter 5 below, Macken-Horarik 1996, Martin 1999b). It is possible for peaks of prominence in information waves to be associated with the ascription of high affective value to text elements. These values may enter into textual contrasts at higher levels of text organisation that contribute to the staging of the text, and its place in the culture.

In Text [3:5] the prominent information group in each information wave is the culminative one. The contrast in prominence is employed here to realise the logical meaning of an activity sequence culminating in a result. Affect is amplified by such marked focus, and may be accompanied by affective voice qualities and facial expressions. This affect may be reacted to empathically by the listener, assigning a significant interpersonal value to the prominent element. For example, the first result *munga purunpa...watarku* was expressed in a sympathetic timbre by the speaker, while the next result *tjilkaringu* was almost whispered with awe. It is possible that these contrasts in prominence then function at the next level of text staging, to create an expectation for the unfolding of the next wave. So for example, if the first (orienting) information waves of a text culminate in a negative situation, this evokes an expectation (and desire) in the listener for its resolution through an action sequence. If the resolution satisfies this desire, the story as a whole may be highly valued and repeated, initially for the pleasure it gives listeners, and eventually for the social value it accumulates with age. It is possible that out of such accumulation of value, a system of myths arises. The regularity of the culminative information waves in Text [3:5] is probably as highly codified as its mythic field—an integral component of the text (see Text [7:1] for less highly regulated patterns of information waves in a contemporary story).

3.5 Textual resources in Western Desert and English

From the examples discussed in this chapter, we can see that the Western Desert systems of textual resources closely parallel those of English in many ways, as described by Halliday (1967a, 1994a) and Martin (1992). A comparative summary of textual resources in the two languages is set out in Table 3.7 below. Each set of resources is referenced to the relevant sections of the survey of the *Western Desert Code* (WDC) on the left, and Halliday's (1994a) *Introduction to Functional* (IFG) on the right. These tabulated comparisons are followed by a commentary on commonalities and variations.

Table 3.7: Comparison of textual resources in Western Desert and English.

WDC 3.2	Identification	IFG 9.2
Phoricity: <i>exo-/ana-/cata-</i> ...	Phoricity: <i>exo-/ana-/cata-</i> ...	Phoricity: <i>exo-/ana-/cata-</i> ...
Demonstrative: proximal: near/median/distant; anaphoric; foregrounded/neutral/backgrounded.	Demonstrative: specific: near/remote; non-specific: definite/indefinite; single/plural.	Demonstrative: specific: near/remote; non-specific: definite/indefinite; single/plural.
Personal: single/dual/plural; foregrounded/neutral/backgrounded.	Personal: singular/plural; masculine/feminine/neuter.	Personal: singular/plural; masculine/feminine/neuter.
Conjunctive: same Medium/switch Medium.	Comparative: general: identity/similarity/difference; particular.	Comparative: general: identity/similarity/difference; particular.
Ellipsis of transitivity structure.	Substitution and ellipsis of mood structure.	Substitution and ellipsis of mood structure.

WDC 3.3	Theme	IFG 3.1–9
Prominence: foreground/neutral/background, realised by rhythm and tonic focus.	Prominence: marked/unmarked, realised by lexicogrammar of mood (Subject/Complement/Adjunct).	Prominence: marked/unmarked, realised by lexicogrammar of mood (Subject/Complement/Adjunct).
Clitic personals used to make non-Medium neutral Theme.	Passive voice used to make non-Actor unmarked Theme	Passive voice used to make non-Actor unmarked Theme
Cohesive conjunction: one conjunctive	Cohesive conjunction: large set of conjunctive	Cohesive conjunction: large set of conjunctive
Adjunct: <i>palulanguru</i> organising temporal staging of texts	Adjuncts: external/ internal; comparative/additive/spatio-temporal/consequential (see ET 4.2–4).	Adjuncts: external/ internal; comparative/additive/spatio-temporal/consequential (see ET 4.2–4).

WDC 3.4	Information	IFG 8.4–6
Distribution: unmarked: tone group = clause/ marked: interpersonal and experiential Theme and late New may be separate tone groups.	Distribution: similar to Western Desert.	Distribution: similar to Western Desert.
Focus: unmarked: clause final, typically focusing on Process (followed by relational processes and other grammatical items)/ marked: Theme/Theme-Rheme boundary.	Focus: similar to Western Desert, but typically focusing on Goal, Range or Circumstance (followed by grammatical items).	Focus: similar to Western Desert, but typically focusing on Goal, Range or Circumstance (followed by grammatical items).
Theme conflated with New by tonic focus.	Passive voice to make Actor unmarked New.	Passive voice to make Actor unmarked New.
Additional late New to focus on elements following Process.	Theme conflated with New by nominalisation (Theme identification and Theme predication), or tonic focus.	Theme conflated with New by nominalisation (Theme identification and Theme predication), or tonic focus.

With respect to INFORMATION systems, there are similar options for one or more tone groups per clause, or clauses per tone group. There is also a similar pattern of neutral culminative and marked thematic tonicity, for the same kinds of functional reasons in organising discourse. Attention has sometimes been drawn to an ‘afterthought construction’ or ‘anti-topic’ in Australian, Papuan and other languages, but such late New elements are an equally common feature of English, spoken English that is.

Options are also broadly comparable in the functions of THEME for contextualising clauses in their textual environment, and for organising texts as pulses of marked and neutral messages. The realisation of Theme by clause-initial position, and its metafunctional organisation, as textual ^ interpersonal ^ experiential Themes, are also largely identical between the languages. Both Western Desert and English apparently differ in this respect

from certain east Asian languages, such as Tagalog and Japanese, that employ particles as 'topic markers' to achieve a similar function (e.g. Martin 1983, Teruya in press).

In the discourse semantic region of IDENTIFICATION, the languages also share a similar spread of functions and realisations, enabling text to accompany or to constitute its context. Perhaps the most significant commonalities are the functions and realisational options for demonstratives realising proximity, and personal pronouns realising interactant/non-interactant roles, and the phoric functions of both.

Differences in textual resources between the languages are of three general types: diversification of functions, alternative realisations of functions and diversification of realisations.

Examples of diversifying functions go both ways. For example, Western Desert diversifies number in personal pronouns while English diversifies gender, a common point of difficulty for Anangu learners of English. Western Desert has three terms in demonstrative proximity, while English has two. Western Desert has the option of plural demonstratives, while number is obligatory and realised diversely in English demonstratives. English also has a diverse system of comparative reference, which may be associated with the diversification of thing types and classification in English nominal groups, and a diverse system of conjunction that has evolved as a resource for constructing written text.

One example of alternative realisations of a similar function is the interclausal cohesive function of conjunctive reference in Western Desert and of conjunction interacting with pronominal reference in English, e.g. 'he said... and she said...'. Another major example is thematising other elements by cliticising Medium in Western Desert and by passive voice in English. A general difference is in the interweaving of textual functions with transitivity features in Western Desert, e.g. conjunctive reference and ellipsis, and with the lexicogrammar of mood in English, e.g. in substitution, ellipsis and theme. The combination of voice in English with the lexicogrammar of mood enables textual functions to be realised without phonology in writing. So while thematic prominence is realised by rhythm and tonic focus in Western Desert, it is realised in English by the lexicogrammar of mood, according to Halliday (1994a), with Subject as unmarked and Complement or Adjunct as marked Themes. The lexicogrammatical mood structure is dissociated from that of transitivity, so that passive voice enables any participant to be Subject or Complement. This in turn is associated with the Theme and Information structures, enabling any participant to be unmarked Theme or New.

Realisational strategies for Information are similar for the spoken modes of each language, with culminative tonic focus on the final lexical element. One thing that differs is the mapping of the information structure of a clause onto its transitivity structure. Western Desert puts unmarked focus on the clause final **Process** as the significant New element, except in relational clauses (where the Attribute or Identifier is the significant New element, whether the relation is verbalised or not). Information focus in English, by contrast, tends to culminate on clause-final Goal, Range or Circumstances, or Agent in passive clauses, and the Process is textually backgrounded in the middle of the clause. Where an element of the Process does need to be focused culminatively, it may be separated out as the 'floating' preposition of a phrasal verb, or simply nominalised. There is a tension in English between the centrality of the Process in the transitivity structure, and its peripherality in the information structure (see Martin 1992, Matthiessen 1995). This tension may have contributed some catalytic potential to the evolving 'objectification' of experiential meaning in English and other Standard European languages, that has its contemporary apotheosis in highly nominalised technical discourse. In Western Desert on the other hand, there is no such tension; the Process remains the significant element of both information and (non-relational)

transitivity, and the language's overall construal of experience remains one of unfolding process, involving but not determined by, things.

Realisational strategies for INFORMATION have also diversified in English in the evolution of its written mode. Without requiring intonation, unmarked information structure is realised by lexicogrammatical sequence in writing, i.e. Given ^ New. Information structure can then be marked with or without intonation by means of nominalisation in Theme identification and Theme predication. The textual functions of voice, nominalisation and conjunction need to be major focuses in English language curricula. Of course they can only be learnt in the context of their text-building functions.

Many of the recently evolved lexicogrammatical textual resources in English are modelled on the older phonological realisations of these resources that are evident in the spoken mode of Western Desert. For example, Martin (1992) shows how lexicogrammatical and graphological resources are deployed to construct waves of Themes and New information in written English, that accumulate as the text unfolds in paragraphs and larger segments, very much as I have demonstrated how thematic tonic focus is used to organise information groups and waves in Western Desert discourse. On the other hand, the discourse semantic system of CONJUNCTION in English has recently expanded greatly to link sentences and segments in written text, by borrowing lexical items from other regions, particularly demonstratives and spatio-temporal circumstances, as *palulanguru* in Western Desert is derived from the third person pronoun inflected for location: motion away.

4 *Interpersonal resources*

4.1 Introduction

The grammatical regions surveyed in this chapter include the interpersonal systems of MOOD, POLARITY, MODAL ASSESSMENT and VOCATION. These interpersonal grammatical resources enable speakers to interact verbally, that is, to enact their social relationships by means of spoken exchanges. The types of interpersonal resources available to Western Desert speakers enable them most generally to:

- i) call, greet and address each other, as kin or other type of social role;
- ii) adopt and assign speech roles to each other, of giving and demanding either information or goods and services;
- iii) assign positive or negative values, and various intermediate types of judgements to the object of the exchange, and to the exchange itself.

From the perspective of the social context of discourse, these linguistic resources are the means by which social subjectivity is jointly constructed through verbal interaction between members of the culture. From the perspective of the grammar, they are options at the rank of clause. In other words the clause functions as the grammatical unit enacting interpersonal meaning. It has evolved to realise a potential move in an exchange between speakers, and carries with it all the possibilities for negotiating intersubjectivity that each move entails. The resources it has evolved for doing so are simultaneously lexicogrammatical and tonal, so that there is a close complementarity between prosodic pattern of the tone group and the lexicogrammatical prosody of the clause. Halliday (1994a:68) illustrates this function of the clause as a move in exchange as follows:

In the act of speaking, the speaker adopts for himself a particular speech role, and in doing so assigns to the listener a complementary role which he wishes him to adopt in turn. For example, in asking a question, a speaker is taking on the role of seeker of information and requiring the listener to take on the role of supplier of information demanded.

The relatively finite set of interpersonal resources in the grammar of the clause enables a very rich diversity of interpersonal meanings to be exchanged between members of Western Desert culture in many different types of relationship. It is not possible in this survey to describe the entire range of possible interpersonal meanings, but I feel it is important to be clear about certain features of interpersonal relations in a culture that is apparently so remote from that of contemporary western Europe, and its colonies in Australia and elsewhere.

Because of the exotic assumptions about indigenous 'communication styles' that this remoteness sometimes gives rise to (see Appendix 2, §A.2.5 for reviews), may I begin by saying that, in my experience, what is most striking is not the interpersonal differences between the cultures but the ease with which members of each can communicate with each other. Indeed I would have to say that I have found as many differences in interpersonal 'style' between Western Desert and contemporary European culture as a whole, as exist between members of various European sub-cultures. This paragraph is a case in point, since the interpersonal resources I have employed to modulate these potentially contentious claims —*I feel it is important, apparently so remote, may I begin by saying that in my experience, what is most striking, indeed I would have to say, to name a few*—are not substantially different in their socio-semantic function to resources available to adult Western Desert speakers to adjust the value and orientation of each move in their exchanges and so negotiate their relationships (although the English phrases I have used may be a little more pompous).

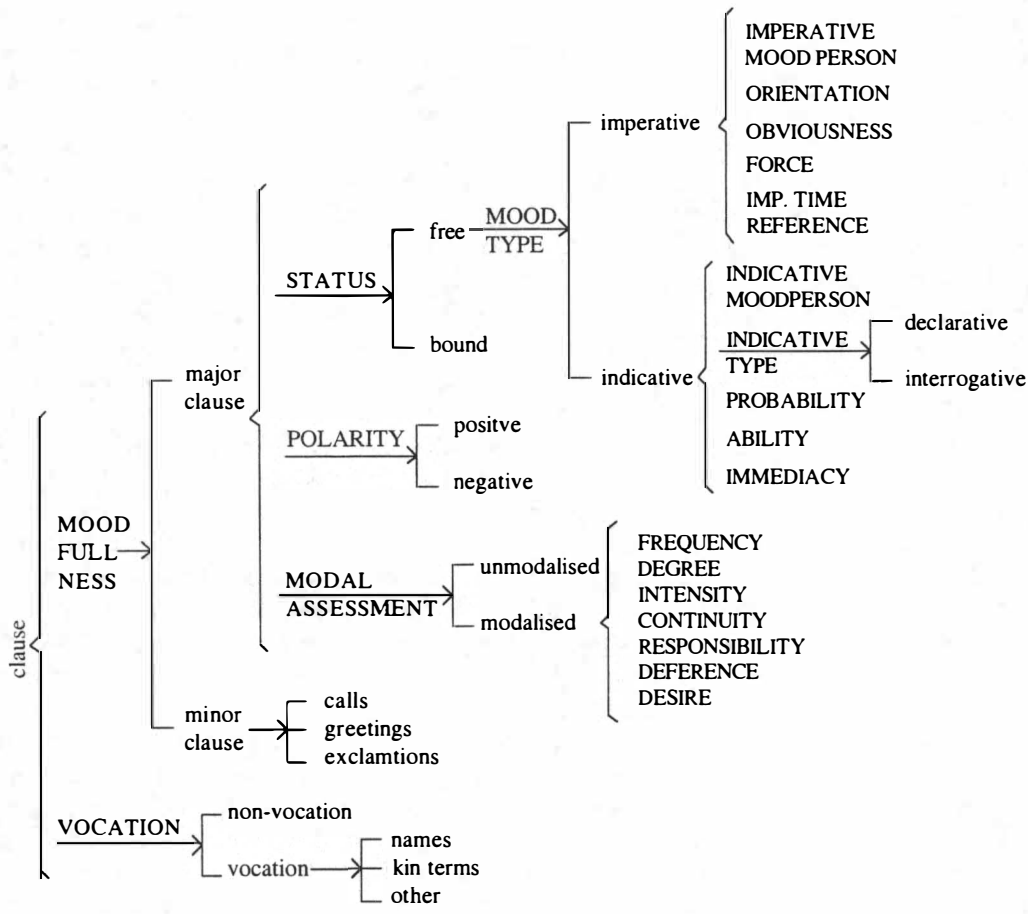
Perhaps the most striking interpersonal difference between the cultures is that there are no 'strangers' in the Western Desert, or rather when a stranger arrives they can very soon be incorporated within the local network of kin relations. For myself this has been the single most potent feature of the culture, since like many outsiders, as soon as I came to work for the communities I was adopted within a family, and consequently within the whole kinship system. However I found that by accepting what the offered relationship entailed, and reciprocating, I was treated by family members with the same degree of closeness and warmth as if I had grown up in the family, while at the same time accorded a degree of respect by all members of the community that I had never experienced in western society.

But despite these 'exotic' characteristics of kinship and mutual respect, the general features of interactions that occur between individuals and groups in the Western Desert are broadly comparable to those in modern European communities. People make demands of each other that are more or less direct or oblique, depending on the degree of solidarity or deference they expect of each other; they respond to each other's demands, and make offers, depending on the degree to which they are able, obliged or willing to do. People exchange information and attitudes with each other, about themselves and other people they know, about social activities, events, history, religion and so forth; they entertain each other with stories and humour, and attempt to persuade each other to actions and points of view. Of course the forms that these exchanges take vary with the relationship and the situation, ranging from the most familiar around the hearth to the highly formulaic in large meetings and religious ceremonies; but it is mainly in the latter that they differ most apparently from the social experience of westerners, just as it is the most formal institutional contexts of western society that often make least sense to indigenous peoples.

The interpersonal grammatical resources for enacting these exchanges are covered in this chapter within six general clause-rank systems, set out System 4.1 below. These include:

- i) the initial choice in MOODFULLNESS, between major clauses which select for mood and minor clauses which do not (§4.2);
- ii) the primary option in MOOD, between imperative clauses (§4.3) and indicative clauses (§4.4), and within each a further five sets of simultaneous systems for selecting meanings such as person, orientation, force and so on;
- iii) the choice in POLARITY between positive and negative value (§4.5);
- iv) the choice in STATUS of major clauses, between free clauses that can function as moves in an exchange, and bound clauses which can not (§4.6);

- v) options in MODAL ASSESSMENT for making judgements of frequency, degree, intensity, and so on (§4.7);
- vi) options in VOCATION for addressing, available for major and minor clauses (§4.8).



System 4.1: General options in interpersonal resources at clause rank

4.1.1 *Speech functions and mood*

An exchange is negotiated between interactants as a sequence of moves. Each move fulfils one or another type of function in an exchange, functions which have distinct realisations in the grammar as imperative, declarative or interrogative clauses. Halliday (1994a:69) suggests that these mood alternatives realise general options for speech functions of:

- i) orientation—giving or demanding,
- ii) (symbolic) commodity—information or goods and services.

Options in speech function are realised simultaneously by the lexicogrammatical mood structure of the clause and the tone contour on which it is spoken. That is, there is an

unmarked tone for each choice in the MOOD system. Variations from the unmarked tone are strategies for realising more delicate distinctions in interpersonal meaning.

As discussed in §2.6.6.2 above, the most general choices in MOOD are between imperative and indicative, realising the generalised speech functional categories of proposal or proposition. Imperative mood is realised by the ending of the finite verb, often the verb stem with ‘zero’ inflection, as in English, *pitja-ø* ‘come!’. The unmarked imperative tone rises from mid to high and then falls to low. Indicative mood is realised by the presence of tense suffixes on the finite verb, if the clause represents a process. Relational clauses without verbs are inherently indicative. If the indicative clause is declarative, the unmarked tone is mid to low fall; if yes-no interrogative, the unmarked tone is rising. Table 4.1 sets out these four general options for speech functions in terms of orientation and commodity exchanged, exemplified by contrast in mood.

Table 4.1: Primary speech functions in Western Desert

(symbolic) commodity	orientation	
	demanding (oriented to addressee)	giving (oriented to speaker)
information (propositions)	question <i>paluru ukali-ngu</i> ‘did he get down?’ indicative: interrogative	statement <i>paluru ukali-ngu</i> ‘he did get down’ indicative: declarative
goods and services (proposals)	command <i>(nyuntu) ukali-wa</i> ‘(you) get down!’ imperative: jussive	offer <i>ngayulu ukali-wa</i> ‘I’ll get down’ imperative: oblique

4.1.2 Choices in modal assessment

There is a wide range of interpersonal resources in Western Desert that enable speakers to grade the value of their roles, status, solidarity, and the (symbolic) commodities they are exchanging. These resources are distributed across the clause-rank systems of MOOD and MODAL ASSESSMENT, as well as group rank options of INTENSIFICATION. They are realised grammatically in mood structures that grade the values of commands, in modal adverbs that grade the values of information, and in adverbial and nominal epithets that grade the values of qualities. Table 2.3 in Chapter 2 gave some examples of the grading potential of these resources.

At clause rank there are two types of grammatical resources for making assessments: options dependent on mood and options that are not. Those dependent on mood enable speakers to adjust meanings such as the force of proposals or the certainty of propositions; they enable the value and orientation of obligation or probability to be graded by degrees. These resources include types of verbal inflection, modal items and tone contours. For example, obligation may be expressed less directly by the oblique imperative verbal suffix *-ma*, and/or modal adverbs such as *wanyu* ‘if you please do’. Variation in pitch, volume and timbre also grade the value of obligation from immediate/high to low. In addition, there are metaphorical variants, expressing commands in the form of questions such as ‘will you do?’, mental projections ‘I want you to do’, or more obliquely as declaratives ‘you are to do’.

As they constitute more delicate selections within mood options, these assessment resources will be surveyed and exemplified here within the context of each mood choice. This is the approach taken by Halliday (1967a) in relation to resources of intonation, since “it seems preferable to consider systems expounded by intonation as no different from other grammatical systems; their place in the description is determined by the total picture” (1967a:32) and further that “Tone-expounded systems in the clause are, it is suggested, most usefully to be regarded as secondary systems of mood; that is to say they are referable to the primary terms of the mood system: declarative, interrogative and imperative” (1967a:40). In the Western Desert, this applies also to assessment systems realised lexicogrammatically, including ORIENTATION and VALUE in imperative mood, and PROBABILITY and IMMEDIACY in indicative mood. I have therefore taken a further step to include these assessment systems in the description of each of these mood options.

Resources for modal assessment not dependent on mood include modal items realising frequency, degree, intensity, continuity, responsibility, deference and desire. Some of these options are gradable, like the mood assessments, others are not. All however enable speakers to exchange judgements on their relationship and on the commodities they are exchanging. These options in MODAL ASSESSMENT will be surveyed separately following the discussion of MOOD and POLARITY.

At group rank, qualities of things and processes may also be intensified, both by lexical expansion of nominal and adverbial groups, and by phonological stress. They can receive the tonic focus and this can be varied in volume and voice quality. Since the focus of this chapter is on interpersonal resources at clause rank, these group rank options will only be touched on here in passing.

4.1.3 *Text examples*

The following four text examples illustrate some ways that the tenor of social relations in Western Desert culture are realised in verbal exchanges. Text [4:1] illustrates a relationship between older and younger sisters characterised by close contact but unequal status. Text [4:2] illustrates a relationship between two senior men who are brothers, with close contact but equal status. Text [4:3] is a conversation between five family members, with varying relationships, planning a trip to gather bush foods. Text [4:4] is between brothers-in-law which is equal but mutually deferent.

Text [4:1] Two sisters

Text [4:1] is a dialogue between an elder and younger sister, that illustrates their relationship of close contact but unequal status. The exchange begins as the younger sister (YZ) has just run back to her elder sister after discovering a large python *kuniya* in a burrow *piti*. She breathlessly exhorts her elder sister *kangkuru* (EZ) to come and see, the elder sister demands to know what she has seen, what she is talking about, and the younger sister explains with awe, what she has seen. Features selected in MOOD and MODAL ASSESSMENT are labelled to the right of each line, in square brackets.

- YZ1 *wanyu paka-ra pitja* [jussive; strong force;
please getting up come-! deference *wanyu*
Please get up and come!
- 2 *kangkuru // watja-lku-na-nta* [yes-no interrogative;
elder sister will tell -I -you? mild vocation *kangkuru*
Big sister, shall I tell you?
- EZ1 *nyaa-n nya-ngu // nyaa // nyaa* [*nya*-interrog; neutral force;
what?-you did see what? what? *nya*-interrog x 2; neutral force]
What did you see? What? What?
- 2 *wala-ngku watja-la* [jussive; neutral force
quickly tell! focused on quality *wala-ngku*
Tell me quickly!
- 3 *nyaa-n wangka-nyi* [*nya*-interrog; strong force]
what?-you are saying
What are you saying?
- YZ3 *wanyu puta // pitja-la nya-wa* [jussive; mild force;
would you please coming look! deference *wanyu* ; desire *puta*
If you please, come and see!
- 4 *kuniya pulka alatjitu tjarpa-ngu* [declarative; strong commitment
utterly huge python did enter (a burrow) focused on size *pulka*
There's an absolutely huge python inside a burrow!
- 5 *piti-ngka -ni nguwanpa tjarpa-tju-nu* [declarative; strong commitment
into a burrow me nearly did drag in focused on degree *nguwanpa*
It nearly dragged me into the burrow!
- 6 *pulka mulapa* [declarative; strong commitment
really big focused on size *pulka*
It's really huge!

The roles of speech functions and other choices in realising status and contact in Text [4:1] are as follows. Firstly, the younger sister opens the exchange excitedly, with a direct command to her elder sister, but immediately moderates this, i) addressing her respectfully by her kinship term *kangkuru*, ii) offering to explain herself, modulating the offer with an interpersonal metaphor of mood, as a yes-no interrogative 'shall I tell you?', in place of the congruent oblique imperative 'I tell you'. This strategy defers to her elder sister by opening up the space for her to respond with a demand. The elder sister does respond with a series of strong demands, in EZ1 and EZ3 for information 'What did you see?', and in EZ2 for a symbolic service, 'Tell me quickly!'. The younger sister responds deferentially in YZ3 with a mild command modulated by *wanyu puta* 'would you please...', and in YZ4–6 with the information demanded by her elder sister. The status roles adopted by the *kangkuru* and *malanpa* in Text [4:1] are examples of this inequality between siblings. The semantic choices taken up by them are set out in Table 4.2.

Table 4.2: Semantic choices realising status and contact in Text [4:1].

	<i>malanpa</i> (deferring)	<i>kangkuru</i> (demanding)
YZ1	strong command (excited)	
2	vocation + offer	
		EZ1 iterated strong <i>nya</i> -question
		2 direct command + stressed immediacy
		3 stressed <i>wh</i> -question
YZ3	command + low obligation	
4	statement + stressed quantity	
5	statement + stressed quality	
6	statement + stressed <i>high</i> quantity	

The unequal relationship between the two is expressed by the different mood and assessment choices the elder and younger sisters take up. On the other hand, close contact is realised by i) the directness of demands on the part of both sisters, ii) the kinship vocation *kangkuru*, and iii) by the intensity given to demands by the elder, and to qualities described by the younger. The inherent tension between close contact and unequal status is evoked in the younger sister's blurting out a command to her sister, and then correcting it with a deferential offer. Her elder sister is able to demand answers so insistently, not only because she is dominant, but also because she is familiar.

Text [4:2] Two brothers

Dialogue [4:2] is between two consanguinal brothers who are both senior men, Henry Tjamumalyi and Sandy Mutju (now deceased). They are debating whether the recorder of their conversation will return the product of his research to the people, or behave like other ethnologists in their experience, and keep it for himself. The younger brother (H), argues from experience of another ethnologist that 'having recorded it, the recorder won't talk', while his older brother (S) argues from experience of this particular recorder (his adopted nephew, the author) that 'no, he is going to tell'.

H1 *paluru* *mantji-ntjanu* // *mantji-lpai-ngku* *wangka-pai-wiya* [declarative:
 he having obtained he who obtains does not talk neutral; neg]
 After doing the recording, the recorder doesn't pass on the information.

- S1 *wiya // paluru tjakultju-nanyi* [neg; declarative:
no he is recounting committed]
No, he'll pass it on!
- H2 *wiya wiya* [negative: committed;
no no ellipsed]
No, no!
- S2 *wangka-nyi -tu* [declarative:
is talking certainly strong commitment]
He'll definitely be talking!
- H3 *wiya kutjara* [negative: neutral;
no two ellipsed]
Twice no.
- S3 *kutjara panya* [declarative: neutral;
two that ellipsed]
Twice the same.
- H4 *palu nyaa // nyaa nyanga* [wh-interrogative:
but what? what? this neutral]
But what, what's this I was saying?
- 5 *mantji-lpai-ngku paluru kunyu wangka-pai-wiya* [declarative: neut;
obtainer he it's said talks not negative]
The recorder, it's said, he doesn't pass on the information.
- 6 *laika Noel Wallace // palumpa wai* [declarative: neut;
like Noel Wallace his way ellipsed]
Like Noel Wallace, his way.

What is being negotiated in this exchange is predominantly polarity, which is being battled backwards and forwards as a series of statements and negations, as in a prototypical argument 'he won't; -yes, he will; -no, he won't'.

H1 opens with a negative statement *mantji-lpai-ngku wangka-pai-wiya* 'the ethnologist won't talk'.

S1 negates H1 with *wiya* 'no!', and the clause is then restated forcefully as a positive statement *paluru tjakultju-nanyi* 'he is telling'.

- H2 doubly negates S1 *wiya wiya* 'no, no'.
- S2 obdurately restates S1 *wangka-nyi-tu* 'he certainly is talking'.
- H3 negates S2 with a linguistic joke *wiya kutjara* 'no twice', parodying himself in H2 *wiya wiya* 'no, no'.
- S3 restates the joke *kutjara panya* 'two times the same', continuing the parody of an argument.
- H4 disrupts the negotiation of polarity with the adversative *palu* 'but' and the focus question *nyaa nyanga* 'what's this (I'm talking about)?'.
- H5 restates the original negative statement of H1, modalised by the reportative particle *kunyu* 'it's said', which objectifies the statement.
- H6 offers a comparative example as evidence 'like Noel Wallace, in the same way as him'. (Noel Wallace was an anthropologist whose research centred on the Pitjantjatjara).

The contact between interactants H and S is close, evidenced by their readiness to directly negate each other's statements, and to share a joke about their mode of arguing. Their status is also very close to equality, but is subtly negotiated by the younger brother to his advantage. While S relies on his seniority for his direct negation and statement to carry weight, H uses irony, objectification and evidence to support his position. Firstly he parodies the no-yes-no mode of argument, making it appear unsophisticated, then interrupts the exchange to restate his original position, objectifying it with *kunyu*, 'it's said (by others)', and offering evidence that is shared knowledge.

Text [4:3] Family members planning a gathering trip

Text [4:3] is a conversation in the evening between four family members planning a trip in the morning to gather bush foods. The interactants are the elder mother, (M), her sister-in-law, (BW), one son, (S), and her daughter-in-law (SW) (now deceased). The little fragment of the kinship system realised in the exchanges in Text [4:3] is set out in Figure 4.1 below.

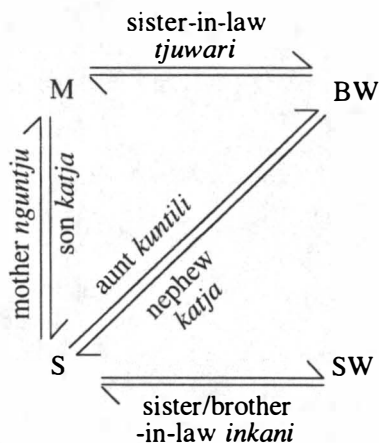


Figure 4.1: Kin relations in Text [4:3]

The plan is negotiated by means of a series of suggestions, confirmations, counter-suggestions, and resolutions. It begins with M suggesting to gather *tjala* 'honey ants', modalised with median probability *-nti* 'probably', indicative mood and future tense *ura-lku* 'will gather' (suggestions are congruently realised in imperative mood), and a tag question *mulapa* 'really?'. The dialogue is first given here in English to orient the reader, and then analysed move by move. Features selected from MOOD and MODAL ASSESSMENT are given below each line to the right, in square brackets.

- M1 Perhaps in the morning we can gather *tjala* (honey ants), what do you think?
 S1 Yes, definitely!
 M2 Tomorrow morning in the daylight, we'll go gathering, and we'll show the children how to do it too.
 BW1 Let's head for the *kurkur* area (acacia bushes where honey ant nests are found).
 M3 For the *kurkur*, and *arnguli* (bush plums) as well. Maybe we'll get *ili* (wild figs). If you go over there you could gather and bring back plenty very quickly.
 S2 Over there, lots of *ili* can be found. (indicating direction)
 BW3 Yes.
 M4 That's true.
 SW1 No, not there, over here! (indicating opposite direction)
 M5 If we go over here (SW's direction) we can have a look. Maybe there are plenty in this place.
 SW2 That is the other day (my son) Mitaiki dug up and gathered plenty.
 M6 There is *ili* here, so let's go and look. Plenty of *ili* is there, so we can gather and bring it back—*ili*, and what else?—*arnguli*. We'll gather *arnguli*. Halfway along the road there's a lot. And as well we can get *tjuratja* (sweet grevillea flowers) afterwards.

The exchange begins with M's suggestion to gather *tjala* 'honey ants'.

- M1 *kuwari -nti -la mungawinki tjala ura-lku // mulapa* [declarative; mild; now maybe we3 in the morning *tjala* will gather really? possible; tagged] Perhaps in the morning we can gather *tjala* (honey ants), what do you think?

Addressing the other adult family members, M1 uses five different strategies for modalising her initial suggestion that 'we might gather *tjala* 'honey ants' in the morning', in order to avoid any implication of power over the others.

- i) She uses declarative mood in place of imperative: hortative, effacing the obligation inherent in her suggestion with the metaphor of giving information rather than demanding compliance.
- ii) She lowers the certainty of the assertion with a clitic realising low probability *-nti* 'maybe'.
- iii) She reduces its assertive force further using mild Tone 1, in contrast to the unmarked suggestive Tone 5 (used later in M2, BW1, etc.).

- iv) She uses future tense *ura-lku* 'will gather' because it expresses less certainty than present tense (later used in M2 *ura-ni* 'are gathering').
- v) She leaves it open for her listeners to agree or not, by means of the tag question *mulapa* 'really?'.

These strategies open up the interpersonal options for responding to M's suggestion, by inviting her sister-in-law and adult son and daughter-in-law to provide certainty, acknowledging the equality of relationships with them, and the need to negotiate joint action, rather than command it. Accordingly, M's son responds in D1 below, with an affirmation *uwa mulapa* 'yes, really', committed on Tone 1-.

S1 *uwa mulapa* [affirmative; declarative;
yes really committed]
Yes, definitely!

Her son's affirmation encourages M who begins turning her suggestion into a plan in M2:

- i) reiterating the time to gather, this time in present tense *ura-ni*,
- ii) suggesting that 'we show the children how to gather', realised by the verb *ungka-lyi-nanyi*, also with indicative inflection like M1, but this time on the neutral imperative Tone 5.

M2 *kalala kuwari mungawinki ura-ni* [declarative;
i this morning in the daytime are gathering mild force]
Tomorrow morning in the daylight, we'll go gathering.

ii *munu -la ungka-lyi-nanyi* [declarative;
and we3 are training (the children how to do so) neutral force]
and we'll show the children how to do it too.

At this stage, M's sister-in-law BW contributes to the plan, in BW1 below, with an elliptical suggestion of the destination to go to, *kurkur*, the acacia tree under which *tjala* are found.

BW1 *kurkur-ta-ku* [imperative; ellipsed;
(heading) for the *kurkur* neutral force]
Let's head for the *kurkur* area.

BW's suggestion is affirmed by M in M3, i) re-stating it with commitment, and then ii) elaborating it with other bush foods to collect, *arnguli* 'bush plums' and *ili* 'wild figs'. This is a suggestion with 'we3' and Tone 5, but with the verb ellipsed, and modalised by *tjinguru*, i.e. 'maybe we'll get *ili*'. She uses this modal item again in the next modalised suggestion iii), which offers evidence to support the plan and translates as 'you could probably drive over there, gather it and bring it back really quickly'.

M3 *kurkur-ta-ku // arnguli kulu* [declarative; ellipsed;
i for the *kurkur* *arnguli* (bush plums) as well strong commitment]
For the *kurkur*, and *arnguli* as well.

ii *tjinguru -la ili* [declarative; ellipsed; reserved;
 maybe we3 *ili* (wild figs) low obviousness *tjinguru*
 Maybe we'll get *ili*.

iii *nyara tjinguru wala pulka nyura ma-wirtjapaka-ra*
 yonder maybe very fast you3 racing away
ura-ra ngalya-kati-nyi [declarative;
 gathering are bringing back neutral commitment]
 If you go over there you could gather and bring back plenty very quickly.

M's son now makes an oblique suggestion in S2, by stating a location where 'lots of *ili* grow'. His aunt BW responds politely to his suggestion with a neutral affirmation, in BW3, and his mother affirms it with commitment in M4.

S2 *nyaratja pakal-pai ili pulka* [declarative;
 yonder do come up lots of *ili* committed]
 Over there, lots of *ili* can be found. (indicating direction)

BW3 *uwa* [affirmation;
 yes neutral commitment]

M4 *mulapa panya* [affirmation;
 true (is) that committed]
 That's true.

However, as his brother's wife SW is a classificatory spouse to S, and is free to talk openly to him, she negates S's suggestion, in SW1 below, and on Tone 5+ strongly suggests an alternative location 'here', pointing in the direction she means.

SW1 *wiya nyangatja* [negation; imperative; ellipsed;
 no (not there) here insistent force]
 No, not there, over here! (indicating opposite direction)

M seizes this opportunity to agree with SW, without having to directly contradict S, in M5

i) with the suggestion 'lets go and look here',

ii) with the modalised explanation that '(ili) may be in here'.

M5 *nyanga-ngka -la nya-wa anku-la* [hortative;
 i at here we3 look-! (while) going neutral force]
 If we go over here (SW's direction) we can have a look.

ii *nyangatja tjinguru ngari-nyi unngu* [declarative; neutral commitment;
 here maybe are lying inside low probability *tjinguru*
 Maybe there are plenty in this place.

SW then offers evidence in SW2 that her son 'Mitaiki recently gathered *tjala* at this place'.

SW2 *mungatu panya* *Mitaiki-lu* *tjawa-ra ura-ningi* [declarative;
the other day, that is Mitaiki was digging and gathering neutral commitment]
That is the other day (my son) Mitaiki dug up and gathered plenty.

M affirms SW's statement in M6 by i) repeating her suggestion '(let's) go and look for *ili* here', and ii) elaborating it with '*ili* is there, so (let's) gather it, and *arnguli* as well'. She then repeats this suggestion iii), but modalised as an indicative 'it's *arnguli* we are gathering', and elaborates it iv) with a committed statement of the location of a lot of *arnguli*, and a suggestion v) that 'we then (gather) *tjuratja* grevillea flowers' (for nectar to make sweet cordial).

M6 *ili* *nyangatja* *anku-la nya-wa* [imperative;
i *ili* here going look-! neutral force]
There is *ili* here, so let's go and look.

ii *ili* *ngara-ma* [declarative;
ili does stand neutral commitment]
Plenty of *ili* is there,

ka *ura-ra kati* // *ili* *munu* *nyaapa* // *arnguli* [imperative;
so gathering bring-! *ili* and what? *arnguli* neutral force]
so we can gather and bring it back - *ili*, and what else? - *arnguli*.

iii *arnguli -la* *ura-ni* [declarative;
arnguli we3 are gathering neutral commitment]
We'll gather *arnguli*.

iv *road-angka kultu* *pulka* *ngari-nyi* [declarative;
halfway along the road a lot is lying committed]
Halfway along the road there's a lot.

v *munu -la* *piruku* *munu* *tjuratja* *-lta* [declar.;
and we3 further and *tjuratja* (sweet grevillea flowers) at that neutral]
And as well we can get *tjuratja*.

M is clearly the leader of her family in this context, of planning a gathering expedition; she initiates the plan and of the 21 clauses spoken in Text [4:3], 14 are hers. She makes all the proposals for action except for BW's elliptical suggestion *kurkataku*, S's suggestion *nyaratja* and SW's response *nyangatja*. However M does not explicitly dominate the group with any direct commands or unmodalised statements; all her proposals and supporting evidence are proffered with probabilities and oblique orientations, realised by mild tones, modal items like *-nti* and *tjinguru*, and metaphors of mood such as indicatives standing for

proposals. Opening up the interpersonal space in this way encourages the group to participate. As they do so, agreement for M's plan accumulates, and the need for modalising her suggestions diminishes.

However there is a risk associated with opening up negotiability, i.e. that one's wishes may be thwarted by someone of equal status. This occurs inadvertently with S's oblique proposal to gather *ili nyaratja*, and both his aunt BW and mother M are obliged to respond affirmatively lest they offend him, i.e. to maintain their solidarity with him. Fortunately SW, as his sister-in-law, is under no constraint to avoid offending him, baldly negating his suggestion and offering a better one that M is able to agree to readily. Of course none of these relationships and strategies for negotiating them are in the least exotic; they are typical of the normal intercourse in an extended family in any culture on earth. Only the ways in which the strategies are realised may be specific to the Western Desert language, and even here, the majority may be seen just as much in English as in any language.

Text [4:4] Two brothers-in-law

Text [4:4] is an example of *tjalpawangkantja* 'speaking obliquely', from a conversation between two brothers-in-law ("WB"), planning a hunting trip. A is visiting the country of B and asks him where they will go hunting.

A1 *tju* // *yaaltji-kutu* [Vocative: deferent;
mate to where? *nya*-interrogative: tagged]
Mate, where to?

A2 *yaaltji-kutu-ngku* // *nguril-kati-ku* // *nyaku-kati-ku* [*nya*-interrog: 1 mild;
to where? will search out will look out (i.e. hunting) 2 neut; 3 tagged]
Where shall we go hunting?

B1 *tju* // *nyara ungu-la* *nyaku-kati-nyi* [Vocative: deferent;
"WB" yonder giving look out for declarative: neut]
Mate, let's give hunting a go over yonder.

B2 *ka-na-tja* *rungkal-ku* *ngayulu* *-manti* *tjinguru* *-mpa* [median prob;
and-I-myself will spear I -probably maybe -maybe low prob x2]
So I'll spear so much that it's quite likely...

B3 *ngapul* *putu* *nguwan* *-tu* *tjala* *nguwan* [declarative: neutral;
to eat unable nearly- certainly burst nearly inability; low degree x 2]
...that I certainly almost won't be able to eat it, I'll almost burst.

A3 *ngangkar* // *alau* // *alau* // *palya* [exclamative: committed;
wow! hello hello alright exclamative: neutral x3]
Wow! Hello, hello! OK!

A1 opens with the Vocative *tju*, a diminutive of *marutju* 'brother-in-law', spoken on a high level tone. This Vocative is a very frequent feature of exchanges between WBs, continually reiterating their solidary respectful relationship. The *nya*-question *yaaltjikutu* 'to where?' is spoken on a rise-fall tone with an additional rise at the end, modalising the demand with uncertainty. This is also a feature of the next line: *yaaltjikutu* is repeated on a falling tone, but the process is elaborated on a rise-fall tone with a rise at the end again. (The verbs *nguril-kati* and *nyaku-kati* are compound lexical items meaning literally 'search while travelling' and 'look while travelling respectively', i.e. tracking and looking out for game while hunting.) Note that while the question refers to both speaker and addressee 'we two', this is left implicit, i.e. direct pronominal reference to the addressee is avoided.

B2 responds with the same Vocative *tju* on a high level tone, and points out where they can 'give hunting a go'. This suggestion is expressed obliquely as a declarative *ungkula nyakukatinyi* literally 'giving are hunting' i.e. 'we're giving hunting a try', whereas the more direct expression of a suggestion is imperative. It is spoken on a low rise-fall tone, echoing the tone of A's question, and again direct pronominal reference to the addressee is avoided. B continues in B2 and B3 with an exaggerated boast about how much game they will spear. Note however that pronominal reference is only to the speaker, and it is highly modalised with probability *ngayulu-manti tjinguru-mpa* 'I-probably maybe-maybe' (spoken on a high level tone with a rise at the end) and degree *nguwana-tu* 'nearly-certainly' (on a falling tone).

A3 responds enthusiastically to this exaggeration with the exclamations *ngankar* 'wow!' (spoken on a high-mid fall) and *alau* (from the English 'hello'), and affirmation *palya* 'OK' (on high rise-fall tones).

The relationship is thus constructed as both explicitly respectful and solidary. This is achieved through:

- i) continual use of the Vocative *tju*,
- ii) avoiding pronominal reference to the addressee,
- iii) modalising of questions, suggestions and statements by means of tone (rise-fall and rise at the end), grammatical metaphor (e.g. suggestion as declarative) and iterated modal items expressing probability and degree,
- iv) expressions of enthusiasm such as exaggerating and exclaiming.

The interpretation of these resources for enacting affinal relationships is facilitated by a theory of register that enables us to systematically relate interpersonal semantic features to tenor variables in the context of situation. The relationship between the speakers is enacted in the exchange between them, and the grammatical resources are employed to enact the exchange.

In conclusion, the grammatical resources of VOCATION, MOOD, POLARITY and MODAL ASSESSMENT enable speakers to adopt certain types of roles towards each other, and to position their addressees in certain roles. The most general variables of these role relations are status: equal/unequal and contact: close/distant. In social interaction these variables combine in various degrees, depending on the situation, to construct the finite set of potential social relationships that make up a small-scale kinship society. In Anangu society, as in any other, social interaction is not simply an aimless flow of words, rather each situation involves a highly predictable sequence of choices from the interpersonal resources of the grammar, enabling people to negotiate their relationships within the explicitly defined framework of a conservative egalitarian culture. We will now go on to examine these interpersonal resources, system by system.

We will begin the review of interpersonal resources with the distinction between major and minor clauses. Major clauses can enact moves in an exchange of information or services, that is, they select for MOOD (imperative/ declarative/ interrogative). Minor clauses do not select for MOOD, as Matthiessen (1995) puts it, “they are self-expressive (exclamations) or are used in one way or another to facilitate major exchanges (e.g. by engaging through calls and greetings, or disengaging through greetings).” We begin with a brief survey of minor clauses.


4.2 Minor clauses

Minor clauses include calls, greetings and exclamations. Although they do not select for MOOD, there is still considerable potential for variation by means of the tone on which minor clauses may be spoken.

4.2.1 Calls


The function of calls is to attract addressees’ attention, potentially initiating an exchange. Calls may be realised by Vocatives [4:5] or the item *awai* [4:6], generally spoken on a high rise-fall tone. The Vocative used for calling varies with the situation. Within the family, personal names are often used, as well as kin terms such as *katja* ‘son’ and class terms such as *tjitji* ‘child’. In large groups it is more common to call people with class terms or the ‘sorry name’ *kunmanara*, which replaces personal names that resemble those of deceased people. The choice of Vocative for calling depends on the degree of respect or solidarity the speaker needs to show the addressee in the particular situation, as well as the other people around. For example, it is respectful to call a man with *wati*, rather than with his personal name, while using *kunmanara* shows respect to the relatives of the deceased.



[4:5]  *kangkuru*
elder sister!


[4:6]  *awai*
hey!

4.2.2 Greetings

Greetings function to open an exchange. They typically include the item *palya* ‘OK’, inquiring after the addressee’s well-being (spoken on a rising tone) and responded to with an affirmation (on a falling tone). Greetings often also begin with *wai* which corresponds to English ‘hello’ or ‘hi’, spoken on a rise-fall tone. The response typically begins with an affirming continuative ‘yes (I’m OK)’. This is normally *uwa* ‘yes’, but *wiya* ‘no’ may also be used metaphorically to emphasise affirmation [4:7].


[4:7] 
 A1 wai, // palya
 hi, alright?
 Hello, how are you?


B uwa ngayulu  palya // ka  nyuntu
 yes, I alright and you?
 Yes, I'm fine. And you?


A2  wiya palya -na
 no, alright I
 No, I'm fine.

4.2.3 Exclamations



Exclamations are a small set of items used to react to what is said or to a situation. They express attitudes and appraisals, including alarm [4:8], disgust [4:9], sympathy [4:10], enthusiasm [4:11], enlightenment or approval [4:12]. They may stand alone [4:8–10] or be elaborated by a comment as example [4:12]. As with calls, most exclamations are also typically spoken on a rise-fall tone. An exception is *ngaltutjara* 'what a shame', which is often spoken on a high Tone 3. Variations in pitch vary the intensity of feeling: the higher the pitch, the more intense the feeling. Exclamations may also be spoken on a high falling tone, when expressing a more muted response, as in Text [4:4] above, from which example [4:11] is extracted. In addition, vowels are often stretched out, and the stress may be placed on the last syllable, in contrast to its normal position on the first syllable of the foot, exemplified in [4:12] with the extension of *wiru* 'good' to *wirau*!

[4:8] 
 laralara
 my goodness! / oh dear!

[4:9] 
 kakarku
 yuck! / how disgusting!

[4:10] 
 ngaltutjara
 what a shame!

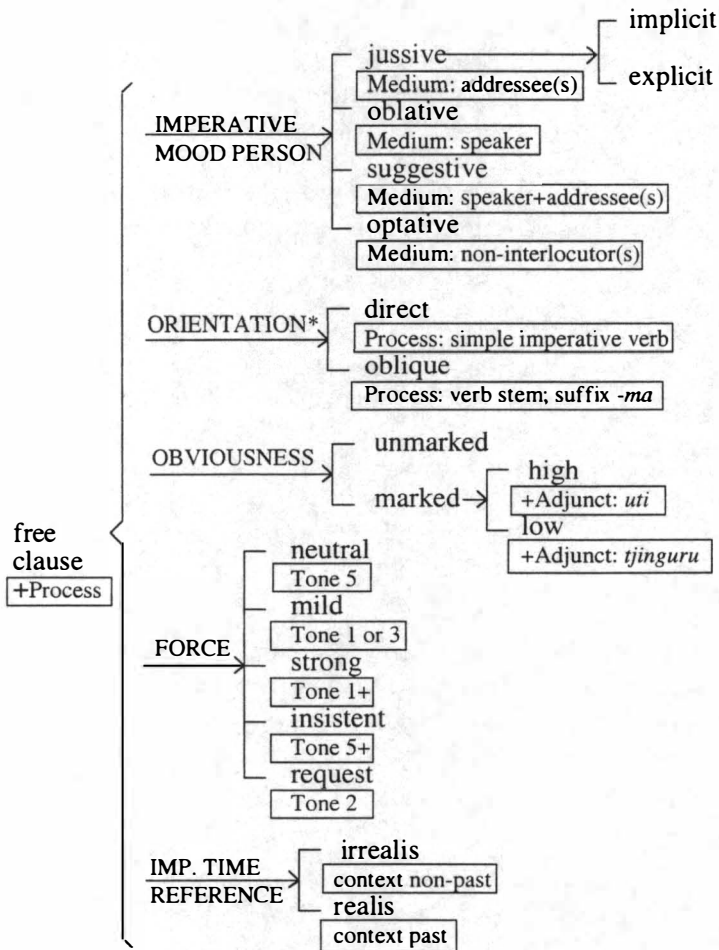
[4:11]    
 ngangkar // alau // alau // palya
 wow! hello hello OK

[4:12]  
 muntauwa // wirau
 aha, now I see! good!

This concludes the discussion of minor clauses. We will now turn to major clauses, beginning with imperative, followed by indicative.

4.3 Imperative clauses

Imperative mood realises the general speech function of proposal, i.e. a verbal move in an exchange of goods and services. The function of a proposal in an exchange is to assign 'modal responsibility' to one or more people to perform an act, which may be some form of doing, sensing, saying or becoming. Since it is realised by the imperative form of a verb, imperative mood cannot be applied to relations that are not expressed by a verb. That is, people can be held responsible to enter into a relation: to become identified with a role, become a member of a class, or part of a whole, where the relation is realised by an inceptive verb, but they cannot be obligated simply to 'be', since there is no such verb in Western Desert. Options for imperative clauses are set out in System 4.2.



System 4.2: Options for imperative clauses

(Contrast not available if negative)

There are six sets of simultaneous options for imperative clauses in System 4.2. To begin with, the person assigned modal responsibility may be the addressee, the speaker, both or neither. This person responsible for acting in imperative clauses is also always its Medium from an experiential perspective; so rather than invent a distinct interpersonal label for the same element, I have retained the term Medium in the realisation statements. Secondly, if the polarity is positive the obligation may be oriented directly or obliquely according to the verb form; negative polarity neutralises this option. Thirdly, the obligation may be construed as more or less obvious (i.e. self-evident), by means of modal items. Fourthly, the force of obligation may be assessed as neutral, mild, strong, insistent or uncertain by varying the tone contour of the imperative clause. Finally, the time reference of the proposed act may be before or after the time of speaking.

4.3.1 IMPERATIVE MOOD PERSON

Selections in the system of IMPERATIVE MOOD PERSON assign modal responsibility to addressee, speaker, speaker + addressee, or non-interactant. In other words, the person held responsible for carrying out a proposal may be the addressee, speaker, both or neither. These selections in IMPERATIVE MOOD PERSON give the imperative sub-types of jussive 'you do!', oblativ 'I/we do!' suggestive 'let's do!', and optative 's/he/they do!'. Each of these selections realises a different type of proposal, i.e. a 'command', an 'offer', a 'suggestion' or an 'optation', respectively.¹ Note that in the latter type, the exchange is construed as extending beyond the immediate context, to include non-interactant(s) as modally responsible person. The four options are set out in the Table 4.3, and exemplified.

Table 4.3: Selections in IMPERATIVE MOOD PERSON

person	mood type	speech function	example
addressee	jussive	command	<i>ma-pitja</i> '(you) go!'
speaker	oblativ	offer	<i>ma-pitja-na</i> 'I'll go!'
speaker + addressee	suggestive	suggestion	<i>ma-pitja-la</i> 'let's go!'
non-interactant	optative	optation	<i>paluru ma-pitja</i> 's/he'll go!'

4.3.1.1 Jussive

Jussive mood realises the speech function 'command'. Although the addressee of the command is typically implicit, it can also be explicitly realised by a pronoun, name or other vocation. Clause [4:13] exemplifies implicit addressee, as example [4:14] does explicit.

¹ I have used traditional labels for options in IMPERATIVE MOOD PERSON, that are based on Latin roots: jussive, oblativ and suggestive from the participial stems *juss-* 'law', *oblat-* 'offering', *suggest-* 'suggesting', and optative from the adjectival form *optativus* 'serving to express a wish'. There appears to be no English noun that denotes a proposal with non-interactant as modally responsible, which is significant since this meaning is typically realised by a modulated declarative in English 's/he must do', and rarely by an imperative mood option, e.g. 'somebody help me!'. I have therefore nominalised the adjective 'optative' to denote the speech function 'optation' in Western Desert.

[4:13] *wala-ngku watja-la*
 quickly tell-!
 Tell me quickly!

[4:14] *wiya // wanti -ya kunyu*
 no leave it! you3 it's said
 No, you mob leave it, they said.

The reportative item *kunyu* deflects responsibility for the command away from the speaker (see §4.7.5 below).

4.3.1.2 Oblative

Oblative mood realises an 'offer'. Example [4:15] exemplifies oblique mood in the context of a 'proposal complex', that is, a command followed by an offer.

[4:15]
 1 *uwa ngalya-pitja*
 yes come hither-!
 Alright, you come here,

+2 *ka ngayulu paka-ra ma-pitja*
 and I getting up away-go-!
 and I'll get up and go away.

4.3.1.3 Suggestive

Suggestive mood realises the proposal sub-type 'suggestion' [4:16]. It includes speaker with addressee in a call to common action.

[4:16] *a-ra -la // uru-kutu*
 go! we3 to waterhole
 Let's go to the waterhole!

4.3.1.4 Optative

Optative mood realises an 'optation' [4:17], i.e. a proposal whose modally responsible person may not be immediately present.

[4:17] *paluru uti wangka-ma*
 s/he clearly speak-!
 She should speak!

The optative configuration, of imperative mood with modally responsible non-interactant, can only be translated into English as a modulated declarative. From a grammatical perspective this type of English clause is a statement, a move in an exchange of information, not of goods and services. This translation fails to capture the precise meaning of the Western Desert indirect command. Indirect commands are realised by imperative clauses, the same as those with interactant mood persons, so their grammar construes them as a type of proposal. This suggests a slightly different model of context from that of English, one in which indirect commands can bring non-interactants into the exchange, construed as though they were interactants.

4.3.2 ORIENTATION

There are two imperative forms of endings on verbs. Depending on contextual factors, these two types realise either alternative values of aspect: punctiliar/continuous, or alternative orientations of obligation: direct or oblique.

4.3.2.1 Direct orientation

The most frequent imperative verb type realises punctiliar aspect and direct orientation, i.e. 'do it now'. This is expressed either by the verb stem without suffix [4:18], or with the suffixes *-la*, *-wa* or *-ra* [4:19], depending on the syllabic form of the verb stem ('conjugation' in traditional terms).

[4:18] *ma-pitja-ø*
away-move-!
Go away!

[4:19] *nyangatja* *urinjinga-la*
this (cause to) turn-!
Turn this thing!

From an experiential perspective, examples [4:18] and [4:19] demand material actions. Example [4:20] illustrates an imperative inceptive relation 'become!'.

[4:20] *pilun-ari-wa*
quiet-become-!
Be quiet!

4.3.2.2 Oblique orientation

The other type of imperative verb realises oblique orientation or continuous aspect; the semantic distinction is apparent in the context. The oblique/continuous type is realised by the suffix *-(n)ma*. Oblique orientation is exemplified in [4:21], translated as 'should do', and continuous aspect in example [4:22], translated as 'keep doing'.

[4:21] *nyura* *uti* *kulin-ma*
 you-3 clearly should listen
 You ought to listen!

[4:22] *rawa* *ana-ma*
 continuously keep going
 Keep on going!

In negative imperative clauses, the distinction between direct and oblique imperative is neutralised, since the suffix becomes simply negative, as in [4:23].

[4:23] *ngayulu* *tjinguru* *anku-ntja* *wiya*
 I perhaps not go
 Maybe I won't go.

4.3.3 FORCE

The force of the obligation expressed by imperative clauses varies with the tone on which it is spoken. The neutral (unmarked) tone for imperative is rise-fall (Tone 5). This tone perhaps combines the meaning of request (rising), with insistence (falling), to realise a neutral demand. Neutral force is illustrated in the examples [4:18–23] above, and need not be repeated here.

4.3.3.1 Mild force

The force of a command is milder when spoken on a mid-falling tone (Tone 1) (construing it more like a statement than a command). This tone is frequently accompanied by deferential modal items such as *wanyu* as in examples [4:24] and [4:25].

[4:24] *wanyu puta* // *pitja-la nya-wa*
 would you please coming look-!
 Please come and look.

[4:25] *wanyu* *ma-tjapi-ra* *kuli-nma*
 hang on asking away should listen-!
 Hang on, you should ask someone else and listen to them.

When the imperative is the primary clause in a sequence, mild force may be expressed by a level tone (Tone 3), as in example [4:26].

[4:26] 1 *uwa* *ngalya-pitja*
 yes come hither-!

- +2 *ka* *ngayulu* *paka-ra ma-pitja*
 and I getting up away-go-!
 Yes, come here, and I will get up and go away.

4.3.3.2 Strong force

The force of a command may be intensified by widening the fall from high to low (1+). Tone 1+ is frequently used by elders calling out to children, and in this context may be prohibitive [4:27] or encouraging [4:28].

- [4:27] *tjtji* *awai* // *wantiri-yara*
 child hey! leaving behind, go
 Child, hey, leave it and go!
- [4:28] // *ngalya* *kantu-la* // *wirura*
 this way dance well
 Dance beautifully towards me!

In example [4:28] an elder is calling out to children who are performing a traditional dance. Note that the command is expressed by high-low falling tone, and echoed by the high-mid fall on *wirura*, a general positive quality translated here as 'beautifully'.

4.3.3.3 Insistent force

The force of obligation may be expressed insistently by a rise-fall-rise [4:29], expressing a similar meaning as a tagged imperative in English 'do it, won't you!'.

- [4:29] *tjitji* *ma-ngari-ma*
 child should lie apart-!
 Child, sleep apart, won't you!

Finally the obligation expressed by imperative mood can be inverted by a rising tone, as we saw in example [4:30], realising a request.

- [4:30] *kuta* *ngayulu* *nyanga-ngka* *ngari*
 older brother, I at here lie-!
 Big brother, may I sleep here?

4.3.4 OBVIOUSNESS

In addition to tone and the form of the verbal suffix, the obligation expressed in imperative clauses can also be modulated with the modal items *uti* and *tjinguru*. In this environment these items realise high and low obviousness, respectively, i.e. the force of the

obligation is more or less obvious.² Both items combine freely with either direct or oblique orientations.

4.3.4.1 High obviousness

The word *uti* means 'obvious/open to view', and is used here metaphorically to express the notion of 'obligation that can be clearly seen' (as the same metaphor is used in English), translated as 'clearly' in examples [4:31–32].

- [4:31] *uti* *-n* *ma-pitja-ø*
 clearly you move away-!
 You ought to go.

- [4:32] *nyura* *uti* *kulin-ma*
 you3 clearly should listen-!
 You people ought to listen.

4.3.4.2 Low obviousness

The item *tjinguru* realises low probability in indicative clauses, but in imperative clauses contrasts with *uti* to mean 'not obvious', translated as 'maybe' in examples [4:33–34].

- [4:33] *ngayulu* *tjinguru* *a-ra*
 I maybe go-!
 Maybe I'll go.

- [4:34] *paluru* *tjinguru* *mantjin-ma*
 s/he maybe should get-!
 Maybe she should get it.

² OBVIOUSNESS only partly corresponds to the interpersonal functional regions covered by the formalist term 'evidentiality', as it is used for example in Chafe and Nichols (1986). Regions included in the 'evidentiality' category include probability in indicative clauses, and its orientation. These are construed as resources for adjusting meanings such as the 'truth value' of propositions (see Matthiessen 1995 for a critique of such construals of semantics). Since these categories are derived from philosophy, they include not only the probability value and orientation of indicatives, but also classes of evidence employed in objective orientations. Although the 'evidentiality' field originates in, and privileges, evidential features of academic discourses, it has been used to describe interpersonal resources in a number of spoken languages. Some of the descriptions in Chafe and Nichols (1986) provide useful information on lexicogrammatical resources for modal assessment in these languages, unfortunately without any analysis of tone contours, or adequate models of tenor. As a result descriptions in this framework are very incomplete, and somewhat arbitrary in their selection of features and description of their functions in social contexts. There is also no clear model of the relationship between these interpersonal features and the language system as a whole. In contrast, Chapter 4 of the survey here attempts to cover the whole set of interpersonal features in Western Desert, at a tertiary degree of delicacy, of which the features discussed under 'evidentiality' in other frameworks form a small part of some regions.

These options in obviousness open up the negotiability of an imperative clause: by appealing to objective evidence, *uti* allows the potential for negotiation, while *tjinguru* opens it up further.

4.3.5 TIME REFERENCE

Proposals in Western Desert are not realised by modulated declaratives. This means that proposals have only one time reference, irrealis, (i.e. after the time of speaking). However when the context is past, the meaning shifts to 'should have' sometimes called 'past subjunctive'. Unlike other languages, including Australian languages such as Kuniyanti (McGregor 1990), Western Desert has no special verbal structure to realise past imperatives, but the clause usually includes the modal adverb *uti* 'clearly', as well as a circumstance of past time. We have already exemplified irrealis time reference above; example [4:35] shows past imperative time reference, realised by the temporal adverbial group *ngura iriti* 'already'.

- [4:35] *ngayulu uti ngura iriti palyan-ma*
 I clearly already should make-!
 I should have made it already!

4.3.6 Grammatical metaphors for proposals

So far I have surveyed resources for varying the person, orientation, force and evidence for proposals, through options in imperative mood and the tone contours on which they are spoken, and with modal items. These resources provide considerable flexibility to negotiate status and contact between speaker and addressee. However the potential for obligating others and oneself to act does not stop there.

Imperative mood is the 'congruent' mode of expression for proposals: it is certainly the most common form in which proposals are expressed and is the form first learned by children. However there are also a range of resources for expressing proposals through mood choices other than imperative, including interrogatives and declaratives in which speaker rather than addressee is Medium, as well as affective mental projections and relational enhancements. Halliday characterises these modes of expression as 'metaphorical', since they mean on two levels simultaneously—on the discourse semantic plane they function as exchanges of goods and services, while on the grammatical plane they realise exchanges of information. Halliday (1994a:342) further points out that:

Metaphorical modes of expression are characteristic of all adult discourse. There is a great deal of variation among different registers in the degree and kind of metaphor that is encountered; but none will be found entirely without it.

Although metaphor is less a feature of Western Desert than of English discourse in general, and literate discourse in particular, there is still considerable interpersonal metaphor used in certain registers, particularly when speakers wish to express deference or avoid direct demands. Children tend to learn these metaphorical expressions as they approach adolescence and their social circle and roles widen to include relationships that demand respect and circumspection.

4.3.6.1 Mental projection

The most common type of interpersonal metaphors in Western Desert are mental projections. These express proposals as explicitly subjective, i.e. that the obligation originates in the consciousness of the speaker, in the form of desires or thoughts.³ Example [4:36] illustrates this with an offer, a metaphor for oblativ mood.

- [4:36] α ngayulu muku-ri-nganyi β anku-ntjikitja
 I am desiring to go-SAME
 I want to go.

The mental projection [4:37] is a metaphor for an optation, 'our executives should build a tawarra school'. In this case the projecting clause α is itself a proposal—an optative clause modulated with oblique orientation and high evidentiality, realising an optation to 'think'.

- [4:37]
 α uti nganampa AP-nguru executive tjuta-ngku kuli-nma
 clearly our executives from AP think-!
 Our executives from AP should consider⁴
- ' β schoola nganampa tawarra palya-ntjikitja
 school our tawarra make-SAME
 to set up our own school as a tawarra.⁵

4.3.6.2 Interrogative clauses

Interrogative proposals are perhaps the next most common form of interpersonal metaphor. They re-enact a demand for goods and services (command) as a demand for information (yes-no question). This has the effect of offering the addressee the choice of responding with yes or no. Thus example [4:38] expresses a command 'listen to me!', deferentially as a yes-no question 'shall I tell you?'.

- [4:38] kangkuru watja-lku -na
 older sister will tell? I
 Sister, shall I tell you?

³ Mental projections realising interpersonal meanings are the starting point for Harkins's (1997) study of 'desiderative constructions' across languages, which also includes 'desiderative inflections', i.e. clitic items realising inclination. Harkins's interpretation of 'desire in language and thought' is based on Wierzbicka's 'natural semantic meta-language', with comparable results to Goddard's (1992) study of *tjalpawangkantja* in Western Desert, reviewed in Appendix 2, §A.2.4 below, since this methodology inherently requires the linguist to project her own experience of thoughts and desires onto the data. However, while Goddard claims exotic forms of interaction in Western Desert, Harkins is looking for 'semantic universals' to which individual languages may conform. The result is a fragmentary picture of certain overt interpersonal features. Nevertheless there is useful data from various languages in Harkins's study, that could be expanded on with the help of a functional model of text in context.

⁴ AP is the Anangu Pitjantjatjara regional land council.

⁵ The *tawarra* was the traditional separate camp for adolescent male initiates, in which they lived and learnt the adult men's arts and knowledge.

Relational enhancements express commands as explicitly objective, effacing the speaker's responsibility for the proposal. The action demanded in example [4:39] is expressed as an irrealis

non-finite clause 'to do', which enhances a relational clause with the verb *ngara-nyi* 'standing'. This translates literally as 'you are standing to do'.

- [4:39] *nyuntu kunyu anku-ntjaku ngara-ngi*
 you it's said to go-SWITCH were standing
 You, it's said, were expected to go.

4.3.6.3 Declarative clauses

An example of a proposal expressed obliquely in declarative mood is the response of B2 to the question 'where shall (we) go hunting?' in Text [4:4] above, *nyara ungku-la nyaku-kati-nyi*, grammatically a declarative '(someone) giving hunting a go yonder', but in terms of the exchange a suggestion 'let's you and me hunt over there'. Another example is the following very indirect demand (quoted from Goddard (1985) in Appendix 2, §A.2.4), presented here as example [4:40]. Tone contours are not provided by Goddard, but we can presume them as follows:

- [4:40] *munta waru-mpa-l // nguwan-ampa-na mana-nyi*
 sorry fire-maybe almost-maybe-I am getting
 Oh, firewood perhaps, I'm possibly nearly getting some.

This is a maximally indirect way of demanding goods, i.e. 'firewood', as a declarative clause with speaker rather than addressee as Medium, and with low degree and low probability *nguwan-ampa* 'almost-possibly'. It is a type of expression characteristic of registers such as *tjalpawangkantja*, where mutual deference is expressed through avoidance of direct demands or reference to the addressee (see Text [4:3] above). Interpersonal grammatical metaphor is a crucial resource for enacting such relationships.

4.3.6.4 Text example: a misreading of interpersonal metaphor

The tension between the discourse semantic and grammatical interpretation of interpersonal metaphors is beautifully illustrated by the following exchange [4:41], in which a mother (M) politely demands a spare blanket from her son (S), in the form of an interrogative. The son misinterprets the metaphor as meaning a demand for information rather than goods and services, replying 'yes it's over there'. His father (F) makes the command explicit 'give me!', which the son (S2) questions with 'sorry?', i.e. 'what do you mean?'. His mother then attempts to repair the misunderstanding (M2) with 'no, it's your blanket, I'll ask the question again'.

- [4:41] *katja // nyuntu blanketa kutjupa kanyi-ni*
 M son you another blanket are having?
 Son, do you have another blanket?

- S *uwa* *ngari-nyi* *nyara*
 yes is lying yonder
 Yes, it's over there.
- F *uwa* *-ni*
 give-! me
 Give it to me!
- S2 *munta*
 sorry?
 Sorry?
- M2 *wiya* *nyuntu-mpa* // *nyanga-ngka* *-na* *tjapi-ni* *piruku*
 no yours to this I am asking again
 No it's yours. I'll ask this again.

4.4 Indicative clauses

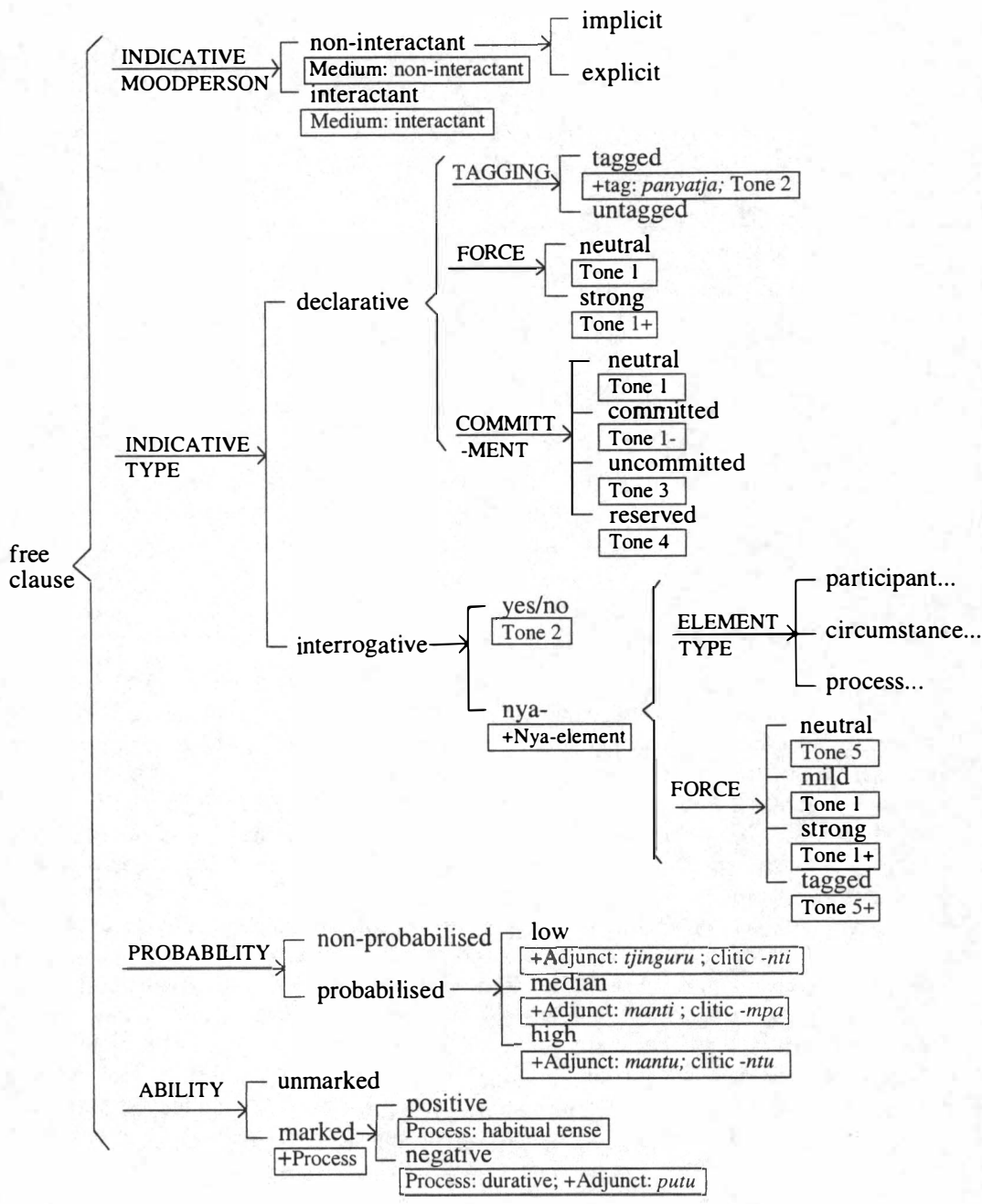
Indicative mood realises the general speech function of proposition, i.e. a verbal move in an exchange of information, including declarative clauses for giving information, yes-no interrogative clauses for demanding information about polarity, and *nya*-interrogative clauses for demanding information about one element of the clause.

Where the process is expressed by a verb, indicative mood is realised by the presence of one of five tense suffixes on the verb stem—past, past continuous, present, habitual or future. Where the clause expresses a relation, the mood is inherently indicative, and time is construed as persistent.

There are five sets of simultaneous options for indicative clauses. As with imperative clauses we will begin with the choice of mood person, although this is more restricted in indicative clauses. Secondly, there is the choice of indicative mood type between declarative, yes-no and *nya*-interrogatives, including sub-types of *nya*-interrogatives. Within each of these mood options we will also survey the sub-systems of options such as tagging, force, commitment, and *nya*-element type. Thirdly, there are options for grading the probability of propositions by means of modal items. Fourth is the option of marking ability as positive or negative, and finally the options for grading the immediacy of an event. These resources are set out in System 4.3 below.

4.4.1 INDICATIVE MOOD PERSON

In indicative clauses there is not the same ascription of modal responsibility to persons as in imperative clauses. However there is a comparable distinction between interactants and non-interactants. The unmarked option for Medium in an indicative clause is non-interactant, so that where a participant is not present in the clause structure it is implicitly a



System 4.3: Options in indicative clauses

non-interactant. That is, there is a choice of explicit or implicit realisation for non-interactants, whereas participants that are interactants must be realised explicitly.

Example [4:42], extracted from Text [4:1], exemplifies explicit (clause 1) and implicit (clauses 2 and 3) realisations of the non-interactant *kuniya pulka alajitu* in indicative clauses. The element referred to is underlined in the clause-ran translation.

[4:42]

- 1 *kuniya pulka alatjitu tjarpa-ngu*
 python big utterly did enter
A huge carpet snake entered a burrow.

- 2 *piti-ngka -ni nguwanpa tjarpatju-nu*
 in a burrow me nearly did put in
It nearly dragged me into the burrow.

- 3 *pulka mulapa*
 big really
It's really huge.

4.4.2 Declarative clauses

Declarative clauses realise giving of information, i.e. statements, by far the most common speech function. Their neutral tone is falling, but there are several other options.

4.4.2.1 Neutral force and commitment

Perhaps the most common context for declarative clauses is in recounts of events, such as examples [4:43–45]. Each of these clauses is a different transitivity type: example [4:43] is a possessive relation realised with a verb, example [4:34] is an action, example [4:35] is an ascriptive relation with no verb; all are spoken on falling tone.


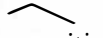



- [4:43] *ka waru uwankara panya // nganana waru kanyi-ni*
 and all that fire we fire are having
 And it's all that fire that we have today.

- [4:44] *nyangatja runka-ra tili-ni*
 this rubbing are igniting
 We ignite this by rubbing sticks together.

- [4:45] *ka waru palya*
 and fire good
 And the fire is good.

4.4.2.2 Strong commitment and force





Other contexts for declaratives include dialogic exchanges, where shifts in tone become more significant, as the following exchange [4:46] illustrates.

- [4:46] 
 A1 *kuta* // *uriltjakanu*
 elder brother demon bird
 Brother, there's a demon bird!
- 
 B1 *tjitji* *ma-pitja*
 child go away-!
 Child, go away!
- 
 B2 *ngunti* *panya* *tjulpu-mpa* *kuli-ni*
 falsely that bird-maybe are hearing
 That's probably only a bird that you've heard.
-  
 A2 *wiya* *mulapa* // *mamu* // *mamu* *nyanga-kutu*
 no really demon demon towards here
 No really, its a demon. There's a demon here somewhere.


Speaker A opens with a querying Vocative spoken on fall-rise tone (Tone 4). His statement is spoken on rise-fall tone expressing commitment, and is responded to by a dismissive statement in B2 spoken emphatically on a high falling tone. A2 then responds with a re-iterating statement spoken on high-mid falling tone, and rise-fall echoing the commitment of his opening statement.

4.4.2.3 Reserved commitment

Other options for tone contours in declarative clauses include the rise at the end expressing reservation (Tone 4), the effect of which is to open up the statement to affirmation by the addressee. This is characteristic of exchanges between distant kin such as brothers-in-law, exemplified following a level tone in [4:47] and following a falling tone in [4:48].

- [4:47] *ka-na-tja* *rungkal-ku* *ngayulu-manti* 
 and-I-myself will spear I-probably maybe-maybe
 So I'll spear so much that I'll quite likely...
-   
 [4:48] *uwa* // *tju* // *kulini-l* *pukul-tu*
 yes "WB" am hearing happily
 Yes, mate, I'm happy to hear that.

However Tone 4 is also common when a response is invited in other contexts, by expressing reservation with Tone 4 in examples [4:49] and [4:50].

- [4:49] *wiya* *nyangatja* *kutjupa* *buy-amila-ni* 
 no this another is buying later
 No, they're buying others of these later, aren't they?

- [4:50] *nyangangka -nti -la ura anku-la*
 here probably we gather going
 We'll probably gather food here when we go.

4.4.2.4 Tagged declaratives

Declarative clauses in Western Desert may be tagged, demanding confirmation of a statement from the addressee. Tag questions consist of the anaphoric reference item *panyatja*, illustrated in an action clause [4:51] and a relation [4:52], or the modal adverb *mulapa* 'really' [4:53], spoken on Tone 2. These items are often spoken with the final vowels ellipsed, sounding as *pany'tj'* or *mulap'*.

The domain of the tag question is the whole proposition. The speaker is demanding information about the polarity of the statement, and the tag is the same whether the statement is negative or positive.

- [4:51] *ankula // nyuntu pitjantjatjara wangka-pai // pany'tj'*
 uncle you Pitjantjatjara do speak tag?
 Uncle, you speak Pitjantjatjara, don't you?

- [4:52] *paluru mayitja wiya // pany'tj'*
 he boss not tag?
 He's not the boss, is he?



- [4:53] *tjinguru ngura iriti anu // mulap'*
 maybe already did go true?
 Maybe they've already gone, true?


4.4.3 Yes-no interrogative clauses

Yes-no interrogative clauses demand confirmation or negation of polarity. They perfectly illustrate the crucial role of intonation in the interpersonal metafunction, since the only structural distinction between declarative and yes-no interrogative clauses in Western Desert is in the tone contour on which they are spoken. While declarative clauses are typically spoken on a falling tone, yes-no interrogatives are spoken on a rising tone. An example is the question in example [4:54] from Text [4:1].


- [4:54] *kangkuru // watja-lku -na*
 elder sister will tell I
 Sister, shall I tell you?


This question demands information about the polarity of the addressee's wishes, and in the context of Text [4:1] was responded to positively with the command 'tell me quickly'. A perhaps more straightforward example is the following exchange pair [4:55], in which the information demanded is plus or minus possession.

[4:55]  
 A *katja // nyuntu blanketa kutjupa kanyi-ni*
 son you another blanket are having
 Son, do you have another blanket?


 B *uwa ngari-nyi nyara*
 yes is lying yonder
 Yes it's over there.

In example [4:55], B's response opens with the affirming continuative *uwa* 'yes', and is spoken on a rise-fall tone, echoing the uncertainty of the question but completing it with certainty. In the following pair in example [4:56], the response also begins with *uwa*, but the tone is falling.

[4:56] 
 A *uti -ya nyanga-ngi*
 clearly they³ were seeing
 Could they see it clearly?


 B *uwa nyaku-la ura-ra kati-ngu*
 yes seeing collecting did bring
 Yes, having seen it, they collected it and brought it back.

4.4.4 *Nya-interrogative clauses*

Nya-questions demand that information be supplied about one element of a clause, 'who, what, when, where, how, why, what happened or what x did', i.e. the identity of a participant, circumstance or process. These elements are realised in *nya*-interrogatives by grammatical items I have called '*nya*-elements', since their initial syllables are clustered around the sounds *nya-/ nga-/ ya-*, in a comparable way to English 'wh-elements' to which they largely correspond.

Nya-elements simultaneously realise interpersonal and experiential roles. They function experientially in the grammatical roles of the transitivity system, but they are lexically empty; their interpersonal function is to demand that the grammatical role is filled out with a specific identity of person, thing, quality, place, time, process, etc. The options for *nya*-elements correspond closely to the options for the transitivity system as a whole—a metagrammatical microcosm within the grammatical system. *Nya*-interrogatives enact the transitivity system as information exchange, mirroring the way that verbal and mental processes represent the mood system as configurations of saying.

I will begin by exemplifying the range of potential *nya*-questions involving various transitivity roles, and then go on to survey the options for varying their tone contour. The unmarked tone for *nya*-interrogatives is rise-fall (Tone 5), as in imperatives, and this will be assumed in the examples of transitivity roles, unless otherwise specified.

4.4.4.1 Transitivity roles of Nya-elements

Nya-elements are inflected for the transitivity roles in which they function, including types of Process, Medium and Range, and circumstances of Time, Place, Accompaniment, Means, Reason and Purpose. There is also a formal distinction between classes of entities, realised as *nyaa*-, and named entities, including people and places, realised as *ngana*-. There are four options for *nya*-processes, depending on process type and effectivity.

4.4.4.1a *Nya-participants*

Nya-participants may be people or things. The form of *nya*-element used for people is *ngana*- ‘who?’, inflected as for proper nouns. For things the *nya*-element is *nyaa*- ‘what?’, inflected as for proper nouns. Inflections vary according to the transitivity role of the *nya*-element, exemplified below for *ngana*- in [4:57–60], and *nyaa*- in [4:61–63].

4.4.4.1a (1) *People*

- [4:57] *Nya*-Actor
ngana-lu -nta pu-ngu
 who? [Actor] you [Goal] did hit
 Who hit you?
- [4:58] *Nya*-Range
tjitji ngana-nya -n toy u-ngu
 child whom? [Recipient] you [Actor] toy [Goal] did give
 What child did you give the toy to?
- [4:59] *Nya*-Token: name
nyuntu ini ngana-nya
 you name [Value] who? [Token]
 What is your name?
- [4:60] *Nya*-Token: possession (Note: the same form is used for possessive Deictics)
ngana-ku palatja
 whose [Token] that [Value]
 Whose is that thing?

4.4.4.1a (2) *Things*

- [4:61] *Nya*-Actor
nyaa-ngku nyangatja katanta-nu
 what? [Actor] this [Goal] did break
 What broke this thing?
- [4:62] *Nya*-Phenomenon
nyuntu nyaa-ku mukuringa-nyi
 you [Senser] what? [Phenom] are wanting
 What do you want?

[4:63] *Nya*-Attribute

<i>punu</i>	<i>nyaa</i>	<i>nyaratja</i>
plant [Carrier]	what? [Attribute]	yonder

What plant is that over there?

4.4.4.1b *Nya-circumstances*

Nya-circumstances include Locations, Purpose, Reason, Quality and Means. They are realised by variations on the *nya*-item stems, *nyaa*-, *ngana*-, and *yaal*- with a circumstantial suffix. The word *nyaa* is used to interrogate classes of things or locations that would be realised by a common noun; *ngana* is used for places and people that would have proper names, while *yaal* tends to have a more indeterminate sense of location, time, manner or cause.

4.4.4.1b (1) *Place*

In circumstances of Place, the three *nya*-item stems have the following meanings.

<i>ngana-la</i>	at what place/with whom? [4:64]
<i>nyaa-ngka</i>	at/in/on what? [4:65]
<i>yaaltji</i>	where? [4:66–7]

[4:64] *nyuntu ngura ngana-languru pitja-nyi*
 you place what?-from are coming
 Where have you come from?

[4:65] *paluru panya nyaa-ngka ngara-nyi*
 that one on what? is standing
 What is that one standing on?

[4:66] *ka kungka-n yaaltji meeting*
 and women-you where? meeting
 And where is the meeting for you women?

[4:67] *nyura yaaltji-kutu a-nanyi*
 you-3 to where? are going
 Where are you all going to?

4.4.4.1b (2) *Purpose*

<i>nyaa-ku</i>	what for/why?
----------------	---------------

[4:68] *nyaa-ku -n wantikati-ngu*
 why? you did leave behind
 Why did you leave it behind?

4.4.4.1b (3) Reason

nyaa-nguru from what (cause)?

- [4:69] *paluru nyaa-nguru pikatjarari-ngu*
 he from what? did become sick
 What did he get sick from?

4.4.4.1b (4) Quality

yaaltji yaaltji how?

- [4:70] *yaalti yaaltji nyangatja*
 how? this
 How did this come to be?

4.4.4.1b (5) Means

nyaa-ngka with what?

- [4:71] *paluru nyaa-ngka palya-nu*
 he with what? did make
 What did he make it with?

4.4.4.1c Nya-process

There are four types of *nya*-process that demand information about different types of processes.

nyaa-ri-nganyi what's happening? [4:72]
nyaa-ni what's Actor doing? (effective clauses) [4:73]
yaaltji-ri-nyi what's Actor doing? (non-effective clauses) [4:74]
yaaltji-nga-ra how is Actor doing? [4:75]

- [4:72] *nyaa-ri-nganyi* // *awai*
 what-is becoming? hey
 What's happening, ey?

- [4:73] *nyuntu palu-nya nyaa-nu*
 you to him did what?
 What did you do to him?

- [4:74] *mungartji paluru yaaltji-ri-ngangi*
 yesterday he was doing what?
 What was he doing yesterday?

The verb asking 'manner of doing' *yaaltjingga-ra* typically occurs as a subordinate process in a hypotactic complex.


- [4:75] *ngayulu yaaltjingga-ra anku-ku*
 βI how doing? α will go
 How will I go?

4.4.4.2 Variations in FORCE in nya-interrogatives

Options in FORCE in *nya*-interrogatives include the values: neutral (Tone 5), mild (1), strong (1+) and tagged (5+).


4.4.4.2a Neutral force


Neutral force (Tone 5) is exemplified in [4:76] with unmarked response in Tone 1.

[4:76] 
 A *nyuntu ini ngana-nya*
 you name who?
 What is your name?

B *ngayulu ini Mitaiki-nya*
 I name Mitaiki
 My name is Mitaiki.


In example [4:77] the *nya*-question is also in neutral tone, while the response iterates the tone of the question, since it comments on the object in question rather than providing an answer.



[4:77] 
 A *ngana-ku palatja*
 whose? (is) that
 Whose is that thing?

B  *ala panya wanti-ngu*
 open that (they) did leave
 They left it open

4.4.4.2b Strong force

Tone 1+ intensifies the force of the demand, exemplified in [4:78], extracted from Text [4:1].


[4:78] 
 A *nyaa-n wangka-nyi*
 what?-you are saying
 What are you saying?

B  *wanyu puta*  *// pitja-la nya-wa*
 would you please coming look-!
 If you please, come and look.

4.4.4.2c Tagged force

The 'tagged' option (Tone 5+) is neutral tone with an additional rise at the end. It has the effect of opening up the interpersonal space, inviting negotiation, analogous to 'where do you






reckon?', and is characteristic of respectful exchanges between distant kin, exemplified in [4:79].

- [4:79]  *nyaaku-n munta a-nu-lta*
 why-you? sorry did go-at that
 Pardon, why did you go then?

4.4.4.2d Mild force

Extract [4:80] exemplifies both tagged and mild force. A1 opens with tagged tone. The mild option is chosen in A2 to downplay the demand, so as not to appear 'too demanding'. However both the neutral *nya*-interrogative tone (Tone 5) and the tagged tone (Tone 5+) are iterated on the two following tone groups.

[4:80]

- A1  *tju*  // *yaaltji-kutu*
 mate to where?
 Mate, where to?
- A2  *yaaltji-kutu-ngku*  // *nguril-kati-ku*  // *nyaku-kati-ku*
 to where? will search out will look out (i.e. hunting)
 Where shall we go hunting?

4.4.5 PROBABILITY

Options in probability enable speakers to modalise propositions with three degrees of likelihood—low, median or high. These values are realised by the modal adjuncts *tjinguru*, *manti* and *mantu* respectively, or the clitic particles *-mpa*, *-nti* or *-tu* respectively.

4.4.5.1 Low probability

Clauses in examples [4:81], [4:82] and [4:83] exemplify the low probability value realised by the modal adjunct *tjinguru* 'maybe'. Note that this item may occur in three different positions in the clause. In example [4:81] its position is thematic, in example [4:82] it follows the Theme, while in example [4:83] *tjinguru* is marked New, in clause-final position. Note also the variations in tone associated with low probability. In example [4:81] the tone is the 'reserved' fall-rise (Tone 4) mirroring the uncertainty of the wording. In example [4:82] the tone is committed (Tone 5), and focused on *ngayulu* as marked Theme, i.e. 'I rather than you might go'. In example [4:83] since the reserved tone (Tone 4) is on the negative proposition in first tone group 'he didn't hear', *tjinguru* iterates the meanings of uncertainty on neutral tone (Tone 1).

[4:81]

tjinguru -ya mayi-lampa kati-ku
 maybe they food-our will bring
 Maybe they'll bring food for us.

[4:82]

ngayulu *tjinguru* an-kuku
 maybe I will go
 I might go.

[4:83]

paluru kuli-ntja wiya // *tjinguru*
 s/he not hear maybe
 He didn't hear perhaps.

The same low probability is expressed non-saliently by the clitic *-mpa*. In the conditional clause complex [4:84], *-mpa* is suffixed to both the temporal adverb *kuwari-mpa*, and to the β process *nyaku-la-mpa*. In the latter instantiation, its probability value functions as condition 'if...'. (See Chapter 6 for further discussion of this feature).

[4:84]

palya-nti // *ka-li* *kuwari-mpa* *putu nyakula-mpa* // *yaltjiring-ku -li*
 OK-maybe so-we now-maybe can't be seeing-if what will do? we 2
 OK maybe, so if we probably now can't see them, then what will we do?

4.4.5.2 Median probability

Median probability is expressed by the adjunct *manti* 'probably', which normally follows the process, a participant or circumstance; or by the clitic *-nti*, suffixed to the process, a participant or circumstance. In the relation [4:85] *manti* follows the Attribute *ngurpa* 'ignorant'. Reserved tone (Tone 4) is typical in clauses including this item.

[4:85]

ngurpa *manti*
 ignorant probably
 He probably doesn't know.

In the negative proposition [4:86] median probability is expressed by the clitic *-nti*, which typically occurs at the end of a tone group, on the rise of Tone 4.

[4:86]

wati panyatja *pitja-ntja-* *wiya* -nti
 man that coming not probably
 That man probably won't come.

4.4.5.3 High probability

High probability is expressed by the adjunct *mantu* 'certainly', which is least frequent in discourse, and like *manti* follows another element. As may be expected since it expresses

certainty, its typical tone is falling (Tone 1). Example [4:87] illustrates a typical occurrence in dialogue.

- [4:87]
- A *paluru* *town-aku* *a-nu*
 s/he for town did go
 Has he gone to town?
- B *uwa* *mantu*
 yes certainly
 Yes, he certainly has.

The exchange pair [4:88] illustrates the expression of certainty with the clitic *-tu* in the context of dialogue, again spoken on the certain falling tone (Tone 1).

- [4:88]
- A *ka-n* *tju* *pukulpa* *-nti*
 and-you WB happy probably
 And mate, are you happy perhaps?
- B *uwa* *tju* *pukulpa-l* // *pukul* *-tu* *kuli-ni* // *wiru*
 yes WB happy-that happy -certainly am hearing good
 Yes mate, I'm happy with that, I'm certainly happily hearing it, it's great.

Another example is this pair [4:89] (extracted from Text [4:2]), in which B's negation of A's statement 'he is recounting' is countered by A2 with high probability stressed with Tone 1+ 'he is definitely talking'.

- [4:89]
- A *wiya* // *paluru* *tjakultju-nanyi*
 no he is recounting
 No, he will tell (our story).
- B *wiya wiya*
 no no
 No, no!
- A2 *wangka-nyi* *-tu*
 is talking certainly
 He will certainly tell it!

In addition, high negative probability is expressed by the clitic *-munu*, which is affixed to a process in example [4:90] or participant, again spoken on falling tone.

- [4:90]
- ngayulu* *palula-kutu* *ankuntja* *-munu*
 I to there go certainly not
 I'm certainly not going there.

4.4.6 ABILITY

Like probability, expressions of (in)ability are restricted to indicative clauses, i.e. they are construed as a feature of propositions, a type of modalisation. Positive ability is marked only by the habitual tense selection, e.g. *palyal-pai* 'does make', i.e. when a person does something continuously they are able to do so. This is extended to the names given to occupations, such as labelling a builder *wali palyal-pai*, literally 'makes houses' (*wali* 'house'), construing an occupation as habitual behaviour. On the other hand, when a person is unable to do something it is marked by a modal adjunct.

4.4.6.1 Negative ability

Negative ability is realised by the adjunct *putu*, typically in the context of a durative process, i.e. the process is construed as unsuccessfully ongoing. This is exemplified with a past durative process in [4:91], with a realis non-finite process in example [4:92], and with a habitual process in example [4:93]. Tonic focus is typically on *putu*, since it is the inability that is newsworthy.

[4:91]

<i>tjana</i>	<i>putu</i>	<i>kunu</i>	<i>waru</i>	<i>mantji-ningi</i>
they	unable	it's said	fire	were getting

They were unable, it's said, to get the fire.

[4:92]

<i>ka ya</i>	<i>palu-nya</i>	<i>putu</i>	<i>mantji-ra</i>
and they	it	unable	getting

And they were unable to get it.

[4:93]

<i>ngayulu</i>	<i>putu</i>	<i>anku-pai</i>
I	unable	do go

I can't walk.

4.4.6.2 Positive ability

Positive ability is inherent in habitual processes, i.e. if a person 'does' (something), then they implicitly 'can do' (it). The sense of positive ability is brought out in the exchange [4:94], where knowledge of an activity (i.e. competence) is questioned, and replied to with habitual process.

[4:94]

A *nyuntu* *nyantju-ku* *ninti*
 you for horse competent
 Do you know (how to ride) horses?


B *uwa* *ngayulu* *nyantju* *tatil-pai*
 yes I horse do mount
 Yeah, I can ride horses.

4.4.7 IMMEDIACY

The potential for tenses to express degrees of immediacy in events yet-to-come is illustrated in the following examples. Each of these examples is commonly used in Western Desert discourse to refer to an anticipated event.⁶


4.4.7.1 Low immediacy

In the question [4:95], immediacy of the event is coded as low by means of future tense, that it may happen at an indeterminate future time.

[4:95] 
 kuwaripa *-la* *a-nkuku*
 soon we will go
 Shall we be going soon?


4.4.7.2 Median immediacy

In example [4:96], immediacy is 'right now' by means of present tense.

[4:96] 
 a-nanyi *-la* *kuwari-tu*
 are going we now-certainly
 We're going right now.

4.4.7.3 High immediacy

In example [4:97], immediacy is so high as to be virtually too late, by means of past tense, and in this instance is also spoken forcefully on Tone 1+.

[4:97] 
 a-nu *-la*
 did go we
 We're gone.

4.5 POLARITY

The survey thus far has described resources for realising mood in finite clauses with positive polarity. This includes imperative verb forms realising proposals and verbal tense suffixes realising propositions, as well as contrasting tone contours for imperative, declarative, yes-no and *nya*-interrogative.


In negative finite clauses, the realisation of mood in the form of the verb is neutralised. Negative polarity in finite clauses is expressed by a single form of the verbal group,

⁶ A similar grading function of tense contrasts is described for Sherpa by Woodbury (1986).


consisting of the verb stem with (or occasionally without) the suffix *-tja*, followed by the negative item *wiya*. The order of elements is fixed, so that the verb plus *wiya* constitutes a verbal group. Since *wiya* is a salient element on which the tonic focus normally falls in most negative clause types, it should probably be classified as a separate word rather than a suffix or clitic in this context. Although there is no distinction of mood types in the verb in negative clauses, mood continues to be distinguished by tone contour.

4.5.1 Negative imperative clauses


In negative imperative mood the tonic focus is typically on the negative *wiya*, and optionally on the finite verb. Example [4:98] is clearly a command, since the mood person is implicit, and therefore jussive.

[4:98] 
 anku-ntja wiya
 go not!
 Don't go!



Reading the wording alone, the following example [4:99] could be confused with a negative declarative since the Medium is non-interactant. However the imperative Tone 5, together with the context of speaking, clearly distinguish it as an optative clause. Again *wiya* carries the tonic focus.

[4:99] 
 Jimmy-nya uti anku-ntja wiya
 Jimmy clearly go not
 Jimmy shouldn't go!

Example [4:100] exemplifies negative imperative, set in a past context.

[4:100] 
 ngayulu uti nganmanpa anku-ntja wiya
 I clearly first go not
 I shouldn't have gone in the first place!

The suffix *-tja* has the effect of neutralising the realisation of mood in the verb. The same effect can also be achieved with the verb stem alone, and is sometimes used in negative clauses without the *-tja* suffix. It may have the effect of making the force of a command more immediate. This is exemplified in [4:101] with the verb stem *wanka* 'talk'.

[4:101]  
 wanka wiya // pilun-ari-wa
 talk not silent-become-!
 Stop talking! Be quiet!

4.5.2 Negative indicative clauses

As with positive indicative clauses, negative declaratives and negative yes-no interrogatives are distinguished by the falling/rising tone distinction; interrogative with Tone 2, and declarative with Tone 1. Negative *nya*-interrogatives are realised by the *nya*-element,

with Tone 5 and tonic focus on the first syllable of the *nya*-element. While temporal reference is not realised by tense in negative indicative clauses, it may generally be inferred from the co-text.

4.5.2.1 Negative declaratives

In negative declarative clauses, the tonic focus also typically falls on the negative item *wiya*. Example [4:102] exemplifies this with a statement, and example [4:103] with an exchange pair that illustrates the negotiation of polarity, as well as the recoverability of time reference from the co-text.

[4:102] *Mitakiki-nya tjana piŋja-ntja wiya*
 Mitakiki they come not
 Mitakiki and the others didn't come.

[4:103]
 A *mayi -ya u-ngu*
 food they did give
 Did they give any food?
 B *wiya // tjana ungku-ntja wiya*
 no they give not
 No, they didn't give any.

Negative relations are exemplified in [4:104]

[4:104] *mai wiya nyangatja*
 food not this
 There isn't any food here.


4.5.2.2 Negative yes-no interrogatives

In yes-no interrogatives, the tonic focus is also likely to be on the negative, since it is the polarity that is the information demanded from the addressee in example [4:105].

[4:105] *nyuntu anku-ntja wiya*
 you go not
 Aren't you going? / Didn't you go?

4.5.2.3 Negative *nya*-interrogatives

In *nya*-interrogatives, like declaratives, it is not the polarity under negotiation but information about one clause element. As with positive *nya*-interrogatives, the tonic focus is most likely to be on the *nya*-item [4:106].

[4:106] 
paluru nyaa-ku mayi payamila-ntja wiya?
 s/he why food buy not
 why didn't she buy food?


4.5.3 Uwa 'yes' and wiya 'no'


4.5.3.1 Wiya

So far in this section we have surveyed the expression of negative polarity in the verbal group. In this environment *wiya* functions as a verbal group element, but we have also seen contexts where *wiya* functions as a statement that negates the polarity of the preceding clause, most notable in Text [4:2] of which three moves are reproduced in example [4:107].

[4:107]

A1 *paluru mantji-ntjanu // mantjil-pai-ngku wangka-pai-wiya*
 he having obtained he who obtains talks not
 After doing the recording, the recorder doesn't pass on the information.

B  *wiya // paluru tjakultju-nanyi*
 no he is recounting
 No, he'll pass it on.

A2  *wiya wiya*
 no no
 No, no!

In example [4:107] A1's negative statement *mantjil-pai-ngku wangka-pai-wiya* 'the obtainer doesn't talk' is negated by B with *wiya*, a statement that is elaborated as 'he is recounting'. This is negated in turn by A2's negative statement *wiya wiya*. Note that both these negative responses are spoken on the high-mid falling tone that I have called Tone 1-, i.e. the denial is firm but not dominating.

4.5.3.2 Uwa

This option for a one-word statement of polarity also includes *uwa* 'yes', an affirming response. The response *uwa* is typically elaborated with a further statement, spoken in a single tone group, as in example [4:108], but *uwa* can also occur alone [4:109], typically on a low Tone 5.

[4:108]

A *uti -ya nyanga-ngi*
 clearly they3 were seeing
 Could they see it clearly?

- B *uwa* *nyaku-la* *ura-ra* *kati-ngu*
 yes seeing collecting did bring
 Yes, having seen it, they collected it and brought it back.

[4:109]

- A *ngayulu* *wangka-ku*
 I will talk?
 Shall I talk?

- B *uwa*
 yes

The force of affirmation can also be intensified by using *wiya* instead of *uwa* as in the response of A2 in example [4:7] above, an effect that is also seen with exclamations, in which context *kura* 'bad' can mean 'really good'. (Note that *uwa* can also function as a continuative, as with English 'yes (go on)', discussed above in §3.3.5.2).

4.5.3.3 Between *uwa* and *wiya*

In between *uwa* and *wiya* are a range of options for one- or two-word responses, including *uwa tjinguru* 'yes maybe' *uwa-nti* 'yes-probably', *wiya-nti* 'probably not', simply *tjinguru* 'maybe' or *tjinguru-nti* 'possible probably' (i.e. 'it's possible but unlikely'), *uwa kunyu* 'yes reportedly' (for *kunyu* see §4.7.5 below) or *uwa panya* 'yes that (is right)'. On the other hand, the responder can opt out of expressing an opinion with the one-word response *wampa* meaning 'I don't know' [4:110] (see the semantic range of Australian English 'dunno'). All of these items can be used for a range of tenor functions: in an equal relationship they may be direct expressions of the speaker's opinion; in an unequal or distant relationship they may be used to avoid expressing polarity directly. Like many of the modalised responses here, *wampa* is typically spoken on Tone 4.

- [4:110] *ngananya* *panyatja*
 A who? that
 Who was that?
- B *wampa*
 don't know
 I dunno.

4.6 MOOD options in bound clauses

So far we have discussed mood options in clauses whose status is 'free'. Free clauses select independently for MOOD, that is they are able to function independently as moves in an exchange sequence. Clauses whose status is 'bound' do not function independently, but are subordinated to free clauses in an exchange. Bound clauses may be dependent clauses in a hypotactic clause complex, in which case their person and time reference is dependent on that

of the dominant free clause, or they may be downranked as Qualifiers in a nominal group (so-called 'relative' or 'noun clauses'), in which case they have no separate person or time reference.

The verb in bound clauses is usually non-finite (does not select for mood). In the environment of hypotactic verbal projection it may be finite (selects for mood), but its person and time reference is dependent on the α mood person.

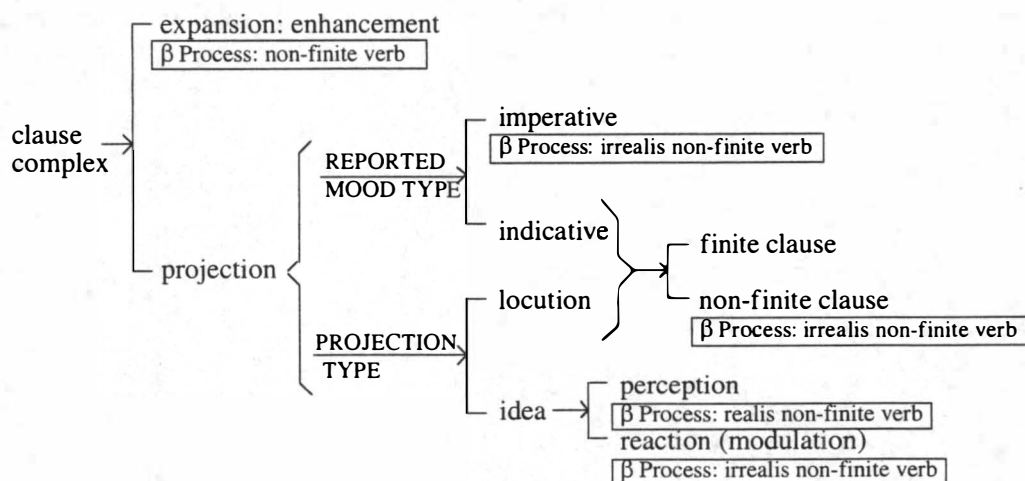
While non-finite clauses do not realise MOOD, they do select for ASPECT: realis/irrealis, and PERSON REFERENCE: same Medium/switch Medium, both of which are realised by the verbal suffix. In the context of hypotactic clause complexes, ASPECT indicates the time of the β event, before/during the α event (realis) 'sitting' or after (irrealis) 'to sit', and PERSON REFERENCE indicates whether the β Medium is same or different (switch) from the α Medium.

An example is a hypotactic mental projection [4:111], in which the β verb is *tjungku-ntjikitja* 'put' + irrealis, same Medium suffix. This type of structure is typically spoken on a single tone group.

[4:111]

α	<i>ngayulu</i>	<i>kuli-ni</i>	β	<i>ini kutjupa</i>	<i>tjungku-ntjikitja</i>
	I	am thinking		another name	to put-SAME
	I was thinking of putting another name to it.				

Bound clauses are either projections (reported ideas or locutions) or expansion: enhancements. (Elaborating and extending expansions are always free clauses, in paratactic relation to the clause they expand.) Since the function of projections is to represent verbal (inter)acts, there is a wide selection of mood options for bound projections. By contrast bound expansions are constrained to indicative mood, no matter what the mood of the free clauses they expand. The options for MOOD in bound clauses are set out in System 4.4.



System 4.4: MOOD options in bound clauses

4.6.1 Bound expansion clauses

Bound expansions realise enhancing logicosemantic relations of time, manner, reason and condition if realis, and purpose if irrealis. In addition, their person selection may be the same

or switched from the preceding clauses. These co-selections are exemplified in [4:112] realising succession with indicative α clause, and example [4:113] realising purpose with imperative α clause. In both cases the mood of the bound β clause is inherently indicative.

[4:112]

β	<i>ngayulu</i>	<i>motorcar</i>	<i>palya-ra</i>	α	<i>Angatja-ku</i>	<i>ma-pitja-nyi</i>
	I	motorcar	fixing-SAME		for Angatja	away-am going
	Upon fixing the car I'm heading for Angatja.					

[4:113]

α	<i>puli</i>	<i>-la</i>	<i>tati-la</i>	// β	<i>kanyila</i>	<i>pawu-ntjikitja</i>
	hill	we	climb-!		euro	to shoot-SAME
	Let's climb the hills to shoot euros (hill wallabies).					

4.6.2 Bound projection clauses

Bound projection clauses report locutions or ideas, in contrast to free projection clauses which quote locutions or ideas. The options for selecting reported mood differ between indicative and imperative bound clauses, that is between propositions and proposals.

4.6.2.1 Reported indicative mood

Bound indicative clauses are non-finite, except in the context of reported speech, when they may be finite. In this case, the indicative mood person may shift to interactant. Quoted speech is exemplified in [4:114]. Here the mood and mood person are quoted from the original speech, and in this case the mood is interrogative with Tone 2.

[4:114]

1	<i>anangu winki</i>	<i>tjapi-ningi</i>	
	all the people	were asking	
	All the people were asking him,		
"2	<i>tinka-nya-mpa</i>	// <i>ilunta-nu</i>	<i>-n</i>
	goanna?	did kill	you
	"What about Goanna? Did you kill him?"		

A reported finite clause is exemplified in [4:115], and here the mood person has shifted. In the original it would have been a non-interactant. Here, that speech is being reported to the person concerned, and thus becomes an interactant, the addressee *nyuntu*.

[4:115]

α	<i>paluru</i>	<i>ngayu-la</i>	<i>wangka-ngu</i>
	she	to me	did say
	She told me,		
" β	<i>panya</i>	<i>nyuntu</i>	<i>Angatja-lakutu</i> <i>a-nu</i>
	that	you	to Angatja did go
	that you went to Angatja.		

A reported non-finite clause is exemplified in [4:116]. Here the mood of the bound clause repeats that of the projecting clause, in this case declarative. This is in contrast to the mood for the speech function being reported, that is, a question. The mood person is also indicated by the verbal suffix, in this case the same as that of the projecting clause.

[4:116]

α *paluru tjana panya pitjala tjapi-ningi*
 those ones coming were asking
 Those ones were coming and asking

" β *Lands Trust tjungku-ntjikitja-ngku*
 Lands Trust to put-SAME-EFFECTIVE
 to create a Lands Trust.

Bound clauses that are projections of mental perception may be realis non-finite, 'doing' in contrast to irrealis 'to do'. Non-finite mental projection however is the marked choice, and is restricted to 'seeing' or 'hearing' the action of another entity, so the person selection is SWITCH. In example [4:117] the projection is instantiated by the verb complex *ngari-ra pinpapinpa-nyangka*, 'lying flashing-SWITCH'.

[4:117]

α *liru-lu nya-ngu // ' β punu panya irati ngari-ra pinpapinpa-nyangka*
 snake did see that magic stick lying flashing-SWITCH
 Snake saw that magic stick lying there flashing.

Note that in the verb complex *ngari-ra pinpapinpa-nyangka*, it is the primary verb *pinpapinpa-nyangka* that is inflected for its clause-rank function, switch reference. The subordinate verb *ngari-ra* is always inflected as SAME PERSON, since the Medium of both processes in a verb complex is always the same identity.

4.6.2.2 Reported imperative mood

Bound imperative clauses may be non-finite, irrealis projections or finite imperative projection. A finite projection is exemplified by [4:118], in which both projecting and projected clauses are imperative mood on Tone 5. Non-finite projected proposals are exemplified by [4:119], spoken on a single tone group with Tone 5 focused on the final element.

[4:118]

1 *DAA ngatji-la // '2 ka -ni money u-wa*
 DAA beg! that me money give!
 Tell DAA that they must give me money.

[4:119]

α *paluru ngayu-nya watja-nu β ngura-ngka nyina-ntjaku*
 he me did tell in camp to sit-SWITCH
 He told me to sit in camp.

Mental projection can realise inclination as well as obligation, in which case the non-finite bound clause is irrealis but with the SAME person suffix as in example [4:115] above. This

can also be interpreted as an imperative reported mood, since inclination is realised in free clauses by imperative mood, with oblique mood person.

4.6.3 Negative polarity in bound clauses

There are three varieties of negative bound clauses, with the negated process realised by the nominal verb form, inflected by the irrealis negative suffix *-wiyaku*, the realis negative suffix *-wiyangka*, or the negative purpose ('for fear of') suffix *-kutawara*. Irrealis negative can be exemplified by the projected proposal, as in [4:120], spoken on the same tone pattern as the positive non-finite proposal in [4:119] above.

[4:120]

α	paluru	ngayu-nya	watja-nu	β	ankuntja -wiyaku
	he	me	did tell		not to go-SWITCH
	He told me not to go.				

Realis negative occurs in hypotactic expansion. Condition is exemplified in [4:121], in which the dependent conditional clause is on Tone 4, with finite effect on a separate tone group, selecting freely for mood (i.e. it could be a question, command, etc.).

[4:121]

α	paluru	pitjantja-wiya-ngka	β	ngayulu	a-nanyi
	he	not coming	//	I	am going
	If he's not coming I'm going				

While positive purpose is realised by an ordinary irrealis non-finite process, negative purpose has a specific form [4:122] to distinguish it from other types of negative irrealis non-finites, as in example [4:120] above. (We can see that the suffix *-tawara* is derived from the nominal morpheme *-tja* and the negative *-wiya*.)

[4:122]

α	ngururpa	-na	tju-nu	β	pungku-ntjaku-tawara
	middle	I	did put	//	lest fall
	In the middle I put it, lest it fall.				

This concludes the discussion of the resources of the MOOD and polarity SYSTEMS in Western Desert clauses.

4.7 MODAL ASSESSMENT

Types of modal assessments include FREQUENCY, DEGREE, INTENSITY, CONTINUITY, RESPONSIBILITY, DEFERENCE and DESIRE. The options for these selections are set out in System 4.5 below. Each option in these systems is realised by a modal Adjunct. These modal Adjuncts are specified in the realisation statements for each option. Most of these are salient adverbs, but some also have clitic forms indicated by a hyphen, e.g. high continuity *-tu* 'always'.

From the perspective of transitivity, many of these modal adverbs realise circumstances of Quality. That is, they may be intensified in an adverbial group and be inflected for the transitivity of the clause they modalise. However, from the perspective of modal assessment

these adverbs and adverbial groups function at clause rank as modal Adjuncts, and so are described here in these terms.⁷

4.7.1 FREQUENCY

The frequency of processes may be assessed by means of a set of modal adverbs, in either indicative or imperative clauses (all of which can be inflected as a Quality). Since it can modalise both indicative and imperative clauses, FREQUENCY differs from the system of PROBABILITY in Western Desert (and the English systems of USUALITY and PROBABILITY) which only modalise propositions.⁸ There are three values of frequency—low, median and high.

4.7.1.1 Low frequency

The low frequency item *kutjupara* is derived from *kutjupa* ‘another’ and *ara* ‘time/occasion’. On its own it means ‘occasionally’, reduplicated as *kutjupara kutjupara*, its frequency value approximates ‘sometimes’, as in example [4:123].

[4:123]

<i>iriti</i>	<i>-ya</i>	<i>kutjupara kutjupara</i>	<i>a-nu</i>	//	<i>ngura panya</i>	<i>palula-kutu</i>
long ago	they	sometimes	did go		that place	to there
Long ago they sometimes went to that place there.						

4.7.1.2 Median frequency

Median frequency is realised by *tjuta ara*, literally ‘many times’, as in example [4:124]. Note that both median and high frequency are often spoken with strong force (Tone 1+) focused on the modal item.

[4:124]

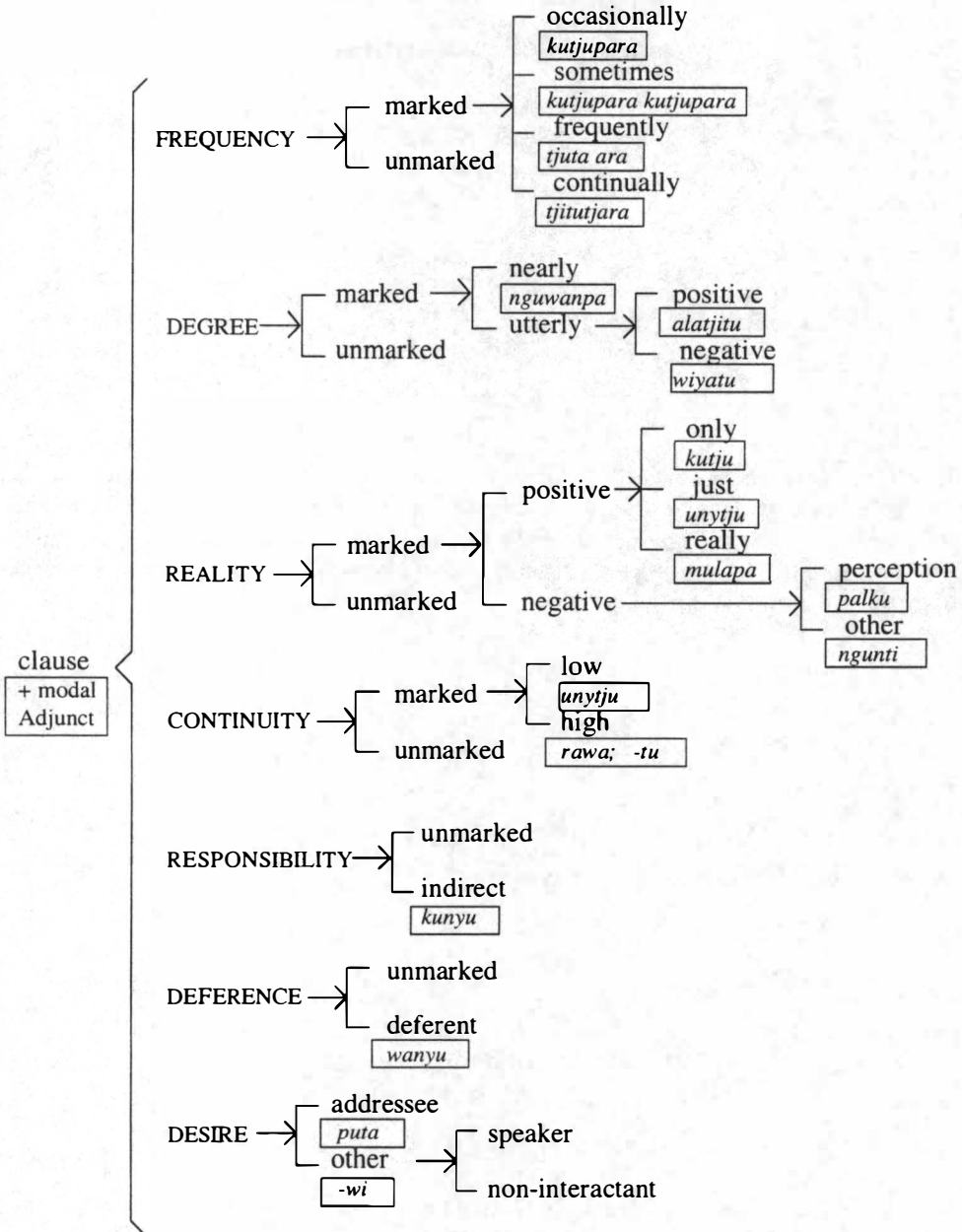
<i>paluru</i>	<i>-ni</i>	<i>tjuta ara</i>	<i>pu-ngu</i>
s/he	me	often	did hit
He frequently hit me.			

4.7.1.3 High frequency

High frequency is realised by *titutjara*, which is used to emphasise a continual relation or action, as in example [4:125] 1 and 2 respectively. Note that in both instances *titutjara* is inflected for transitivity, and in the first is also intensified as *titutjara-ku alatjitu*, in which *alatjitu* is functioning as a group rank Intensifier of *titutjara-ku*.

⁷ In these respects MODAL ASSESSMENT in Western Desert differs from English (Halliday 1994a, Matthiessen 1995), in which modality can be realised within the verbal group as a finite auxiliary verb, or as modal Adjuncts that do not also have a transitivity function.

⁸ I have used the term ‘frequency’ here to distinguish this system from the English modality system of usuality.



System 4.5: Resources in MODAL ASSESSMENT

[4:125]

1 *Land Rights nyangatja* *nyuntu-mpa alatjitu* // *nyuntu-mpa*
 this Land Rights (is) yours absolutely yours

tjitutjara-ku alatjitu
absolutely for always

This type of Land Rights is completely yours, yours forever.

- 2 *nyuntu* *tjitutjara-ngku* *run-amila-ntjaku*
you always to run (i.e. manage)
for you to manage forever.

4.7.2 DEGREE

Options in degree assess the completeness of an event, relation, quality or quantity. There are two outer values: positive *alatjitu* 'utterly' and negative *wiyatu* 'not at all', neither of which can be inflected, and an 'incomplete' value *nguwanpa* 'nearly' that can be inflected as a Quality. Incomplete degree can be inflected but complete values cannot. As with frequency, the tonic focus is often on the modal item.

4.7.2.1 Incomplete degree

[4:126]

piti-ngka *-ni* *nguwanpa* *tjarpatju-nu*
in a burrow me nearly did put in
It nearly dragged me into the burrow.

4.7.2.2 Complete degree

The outer or complete values of degree end with the same morpheme as the high probability clitic *-tu*, but are grammatical items in their own right.

[4:127]

kutjara-ngku *alatjitu* *pu-ngangi*
two-reflexive utterly were hitting
The two of them were hitting each other utterly (pounding each other).

[4:128]

mayi *wiyatu* *ngari-nyi*
food not at all is lying
Is there no food at all?

4.7.3 REALITY

This is a system for assessing the reality of an event or relation, as more or less real or unreal.

4.7.3.1 Positive reality

Positive reality may have three values—low ‘only’, median ‘just’ or high ‘really’—each of which may be inflected as Quality.

4.7.3.1a Low reality: ‘only’

Low reality is realised by the adjunct *kutju* ‘only’, as in the exchange [4:129]. It has a sense of little consequence.

- [4:129]
- | | | | | |
|---|----------------------------------|------------------------------------|---|------------------------------|
| A | <i>tjitji</i>
child
Child, | <i>// nyuntu</i>
you
did you | <i>nyangatja</i>
this thing
touch this? | <i>pampu-nu</i>
did touch |
|---|----------------------------------|------------------------------------|---|------------------------------|
- B
- | | | | |
|--------------------------|--------------------------|---|--------------------------------|
| <i>wiya</i>
no
No, | <i>ngayulu</i>
I
I | <i>nya-ngu</i>
did look
only looked | <i>kutju</i>
only
at it. |
|--------------------------|--------------------------|---|--------------------------------|

4.7.3.1b Median reality: ‘just’

Median reality is realised by *unytju* ‘just’, as in the statement [4:130].

- [4:130]
- | | | | |
|------------------------------|------------------------------------|------------------------|--|
| <i>paluru</i>
s/he
She | <i>unytju-ngku</i>
just
just | <i>-ni</i>
me
me | <i>pu-ngu</i>
did hit
(for some reason). |
|------------------------------|------------------------------------|------------------------|--|

4.7.3.1c High reality: ‘really’

High reality is realised by *mulapa* ‘really’, as in the question [4:131], or *mula-mula* ‘really’, as in the statement [4:132].

- [4:131]
- | | | |
|----------------------------------|-----------------------------------|--|
| <i>God-anya</i>
God
Is God | <i>mulapa</i>
really
really | <i>pitja-nyi</i>
is coming
coming? |
|----------------------------------|-----------------------------------|--|
- [4:132]
- | | | |
|--------------------------------|---|---------------------------------|
| <i>nyura</i>
you3
You're | <i>mula-mula-ngku</i>
really
speaking | <i>wangka-nyi</i>
are saying |
|--------------------------------|---|---------------------------------|

4.7.3.2 Negative reality

Negative reality has two expressions as modal adjuncts, *palku* ‘mistakenly perceived’ which cannot be inflected, and *ngunti* ‘mistakenly’ which can be inflected as a Quality.

4.7.3.2a *Mistaken perception*

Mistaken perception is realised very differently from English, by the modal item *palku* that has no transitivity function.

- [4:133] —————
kuniya-lta *palku*
 desert python-at that mistakenly perceived
 At that she mistook it for a desert python.

4.7.3.2b *Other mistakenness*

The adverb *ngunti* can function in various environments to mean ‘mistakenly’. This may be accidentally mistaken or deliberately mistaken, i.e. a lie. The adverb *ngunti* functions grammatically as a Quality. In the example [4:134] below the mistakenness is accidental.

- [4:134] —————
 // *tjinguru-n ngunti para-pitja-la // kuru-n pirpirpa tjulpu*
 maybe-you mistakenly going around eyes-you blind bird
kuli-nija
 hearing
 Maybe you’re wrongly going around, blindly hearing a bird.

The elements *ngunti* and *unytju* are often used in combination, as in example [4:135], in the self-dismissive opening line of a speech to a gathering that includes people to whom the speaker is expected to defer.

- [4:135] —————
ngayulu ngunti unytju wangka-nyi // nyura kuli-nijaku
 why mistakenly just are saying you3 to think
 I’m just speaking mistakenly, for you to think about it.

4.7.4 CONTINUITY

Temporal continuity of an event or relation has two values: low expressed by the modal adjunct *unytju* ‘transiently’, and high expressed by the modal adjunct *rawa* ‘continuously’, or the modal clitic *-tu*. Although these items also realise values in the systems of REALITY and FREQUENCY respectively, here they are functioning differently. These items may be inflected as Quality.

4.7.4.1 *Low continuity: ‘transiently’*

In the context of CONTINUITY, *unytju* means ‘for a short while’, glossed below as ‘transiently’.

- [4:136] —————
ngali Amata-la nyina-nyi unytju
 we2 at Amata are sitting transiently
 We’re staying at Amata just for now.

4.7.4.2 *High continuity: 'continuously'*

In the context of CONTINUITY, *rawa* means 'continuously', in contrast to its meaning in FREQUENCY as 'often'.

[4:137]

munu palulanguru rawa a-nangi // piruku
 and from then continuously were going again
 And from then we were continuously going back, over and over.

4.7.4.3 *High continuity: 'still'*

While *unytju* and *rawa* often have the tonic focus in this context, *-tu* rarely does (and of course cannot be inflected). Note that *-tu* also functions as high probability, but in this context approximately translates as 'still'.

[4:138]

meeting-ingka -ya wangka-nyi -tu
 in the meeting they are talking still
 They're still talking in the meeting.

4.7.5 *Responsibility*

The modal adjunct *kunyu* functions to displace responsibility for an utterance away from the speaker. Its approximate translation in English is 'reportedly' or 'so it's said'. This is apparent in the exchange [4:139] where the affirming answer is modalised with *kunyu*. It is very frequent in traditional stories, as the teller repeatedly disclaims personal responsibility for its creation, as in example [4:140]. But it is also common in everyday discourse, in the context of propositions and proposals, as in the command [4:141]. Tonic focus is rarely on *kunyu*, unless it is deliberately emphasised with Tone 4, to suggest potential unreliability of a reported statement. It is not inflected.

[4:139]

A *nyuntu kuli-ni // Amata-nya winner*
 you are hearing? Amata winner
 Have you heard? Amata's the winner (of the football).

B

uwa kunyu
 yes it's said
 Yes, so it's said.

[4:140]

ka kunyu wati kutju-ngku tili wirutjara-ngka nyina-ngi
 and it's said one man with good fire was sitting
 And, it's said, one man had good firesticks.

- [4:141] —
nyuntu kunyu kanyin-ma
 you it's said should keep-!
 It was said you should keep it.

4.7.6 Deference

The modal adjunct *wanyu* expresses deference to the addressee, commonly in the context of commands, as in example [4:142], but also in questions, as in example [4:143]. These are both demanding speech functions, and *wanyu* functions to modulate the strength of the demand, acknowledging the addressee's choice to respond. Its approximate translation is 'if you please' or 'if you don't mind'. It is not inflected.

- [4:142] ^
wanyu wili mantji-la
 please long stick fetch!
 If you please, fetch a long stick (a tool for feeling down burrows).

- [4:143] —
nyuntu wanyu nyina-nyi nyanga-ngka
 you please are sitting here
 If you please, are you sitting here?

4.7.7 Desire

Desire for an object or the outcome of an event may be assigned to the addressee by the adjunct *puta*, where its meaning approximates 'do you wish/think?'. Or it may be assigned by the clitic *-wi* to the speaker, meaning 'I wish', or a non-interactant, meaning 'they wish'. Neither of these can be inflected.

4.7.7.1 Addressee's desire

The adjunct *puta* functions like *wanyu* to assign responsibility to the addressee for responding to a demand, as in the question [4:144].

- [4:144] —
nyuntu puta a-nkuku
 you do you wish will go
 Will you go, do you think?

4.7.7.2 Speaker's or non-interactant's desire

Desire is ascribed by *-wi* to the speaker where 'I' am a participant in the clause, as in example [4:145], or less frequently to a non-interactant, as in example [4:146].

[4:145]

<i>ka</i>	<i>-ni</i>	<i>-ya</i>	<i>-wi</i>	<i>inka-tjingkantja</i>	<i>wiya-ngku</i>	<i>wanti-ma</i>
and	me	you ³	I wish	not tease		should leave it

And, I wish, you should stop teasing me.

[4:146]

<i>ka</i>	<i>waru</i>	<i>-wi</i>	<i>kaangka-ngku</i>	<i>nya-ngu</i>
and	fire	they wish	crow	did see

And the crows, wishing for fire, saw.

4.7.7.3 *Desire and deference combined*

Desire and deference may occur together in the same clause, extending the potential for modulating the deference towards the addressee, as in example [4:147]. This is comparable to the deferent effect of combining a modal auxiliary and modal adjunct in an English clause, as in the translation for example [4:147].

[4:147]

<i>wanyu puta</i>	<i>pitja-la nya-wa</i>
would you please	coming look-!

If you please, perhaps you must come and see.

4.8 VOCATION

4.8.1 *Vocative types*

VOCATION is the system of items by which speakers address each other. These items are given the grammatical label Vocative. VOCATION is independent of moodfullness, i.e. Vocatives may occur in virtually any clause type, major or minor as we have illustrated throughout this chapter, beginning with the discussion of calls in §4.2.1 above. The Vocative element is realised by the uninflected form of common or proper nominals. Types of Vocatives include personal names, relationship terms and social categories.

Personal names are of three types: those given or inherited from a member of the grandparents' generation, nicknames such as *Kutjukuru* 'only child', or English names. Vocative is the typical and therefore unmarked grammatical function for personal names (i.e. proper nouns); in all their transitivity functions proper names are inflected, in contrast to common nominals which are uninflected in their typical roles as Medium in intransitive clauses and Range in transitive clauses. In other words, names are used to address people rather than refer to them (see von Sturmer 1988). They are regarded as an integral part of a person, so that using a person's name to talk about them when they are not present may be not merely disrespectful, but potentially harmful. This is less so within immediate families, but very apparent when referring to a person to whom one should defer; people will go to extraordinary lengths to avoid mentioning such a person by name. A common alternative is to refer to them by the place they come from, so that we sometimes hear place names as Actors, Sensors and Sayers! Another strategy is to refer to them as so-and-so's parent or grandparent, since the name of a child is less to be avoided, e.g. *Ashley-ku tjamu* 'Ashley's grandfather' or *Lisa-ku mama* 'Lisa's father'. This is commonly used where a person's name is the same or similar to the recently deceased, in which case it is not even used as a Vocative for some

years. The 'sorry name' *Kunmanara* replaces the personal name in this context. *Kunmanara* is one name that is freely used as a Vocative in any context; it is sometimes amusing to see how many people stop and turn around when the name *Kunmanara* is called out.

The largest set of relationship terms is kinship roles, the core terms of which are set out in Chapter 1, §1.1.4 above, but relationship terms also include other roles such as *mayitja* 'boss'. There are three systems of kinship terms in the Western Desert. Groups in the NT and northern WA use the complex eight 'sub-section' system, while in central-southern WA the four 'section' system is used (see Scheffler 1981, for a general survey of Australian kin classifications).


Each person in these systems belongs to a kin section or sub-section, inherited patrilineally in alternate generations, i.e. they are the same kin class as their paternal grandfather, and their classificatory relationship to any other person can be instantly determined. In these areas a person may be addressed by the term denoting their relationship to the speaker, e.g. *kuta* 'EB', *untal* 'daughter', or by the name of the section/sub-section category they belong to. In SA and southern NT, these section systems are not used, and the system of relationship terms is relatively simple, e.g. only one term for 'grandfather' *tjamu*, or 'grandmother' *kami*, whether it is mother's or father's parent. Some kinship terms are never used as Vocative, including 'avoidance' relations such as ceremonial 'father-in-law' *wapatju*; while others are used frequently in discourse to emphasise the relationship, such as *tju*, short for *marutju* 'brother-in-law'. It is noteworthy that in Western Desert, kinship terms that end in a consonant, such *untal* or *kulpal* 'mother's brother' have *-pa* added to them in non-Vocative contexts, i.e. *untalpa*, *kulpalpa*, since one of the formal distinguishing features of the Pitjantjatjara dialect is that all words must end in a vowel. However when they function as Vocatives the *-pa* ending is dropped from these kinship terms.

4.8.2 Force of vocations

Although it lies outside the mood system, VOCATION is an important set of resources for constructing and maintaining relationships. The choice of Vocative is crucial in this regard, as we illustrated in Chapter 1 with Text [1:1], where the younger brother addresses his elder respectfully as *kuta*, who in turn addresses the younger almost dismissively as *tjitji* 'child'. Equally important is the tone chosen for the Vocative, which is typically clause-initial and spoken on its own tone group, exemplified by the low falling tone used by the younger brother to express mild force. The following examples are organised by tone. They begin with strong force for demands (Tone 1+), followed by mild force for propositions (1), solidary respect (3), deference (4) and calling (5).

4.8.2.1 Strong force

In example [4:148] a child addresses her grandmother by name with strong force, illustrating the close contact and reciprocity between grandchildren and grandparents, in which explicit direct demands are the norm.

[4:148]  *Kutjukuru* // *mayi* -ni u-wa
Kutjukuru food me give-!
Kutjukuru, give me food!

In example [4:149] an adult addresses a child reproachfully with strong force as 'child', believing the child to be responsible for damaging something.

[4:149] *tjitji // nyuntu nyangatja pampu-nu*
 child you this thing did touch
 Child, did you touch this?

4.8.2.2 Mild force

In example [4:150] the younger sister from Text [4:1] addresses her elder respectfully as 'elder sister' with mild force, illustrating the respect that young adults are expected to show their elders.

[4:150] *kangkuru // watja-lku -na*
 EZ will tell I
 Sister, shall I tell you?

4.8.2.3 Solidary force

In example [4:151] a man addresses another with a combination of solidarity and respect, realised both in the tone (Tone 3+) and in the Vocative *wati wiru* 'good man'. Note here that social category Vocatives, such as *wati*, *tjitji* and so on, can be modified.

[4:151] *wati wiru // meetingi kuwari*
 man good ! meeting now
 Good man, there's a meeting soon.

The same solidary tone is used in example [4:152] with the kin term *tju* 'mate', an abbreviated form of *marutju* "WB". Here it follows the affirmative *uwa* on the same tone group.

[4:152] *uwa tju // kuli-ni -na-l pukul-tu*
 yes "WB" am hearing I-that happily
 Yes mate, I'm hearing that happily.

4.8.2.4 Deferent force

Deference is expressed by Tone 4 in example [4:153], in which a younger brother appeals to his elder.

[4:153] *kuta // uriltjakanu*
 EB demon bird
 Brother, there's a demon bird!

4.8.2.5 *Calling*

Finally a Vocative may be part of a call, as in example [4:154], which is in neutral Tone 5.

[4:154] *wati awai*
 man hey!
 Hey, man!

4.8.3 *Non-thematic vocations*

So far we have exemplified the typical thematic occurrence of Vocatives, most often preceding any other elements. However they can also occur in the middle of a clause, immediately following the Theme [4:155], in which case they are usually unfocused; or at the end of the clause [4:156], where they receive the unmarked tonic focus.

[4:155] *wiya ngura nyaratja // tjitji ma-ngari*
 no, yonder place child, lie apart-!
 No! Sleep apart over there, child!

[4:156] *nyuntu pitja-ni mama*
 you are coming father?
 Are you coming, father?

Vocatives thus exemplify many of the features of the interpersonal grammar in general. In the choices of Vocatives available, they overtly instantiate the system of social relations in the culture. In their typical structural position at the start of the clause, they instantiate the organisation of discourse as exchange, opening each move with an explicitly interpersonal element. On the other hand, in their potential for occurring at other points in the clause, they also punctuate the prosodic structures in which interpersonal meanings are realised, both lexicogrammatical and phonological. Finally, in the tonal options available to them, they instantiate the characteristic gradable nature of interpersonal meanings, i.e. they are negotiable.

4.9 *Interpersonal resources in Western Desert and English*

In the options for enacting social roles in MOOD and MODAL ASSESSMENT, Western Desert and English share a comparable spread of functional regions, realised as lexicogrammatical and tonal structures of imperative, declarative, yes-no or element interrogative clauses. Choices in the value and orientation of obligation and probability are also similar and realised by the same strategies of tone and modal Adjuncts. Differences arise in the more delicate organisation of modality systems, and in the dissociation of lexicogrammatical and tonal realisations in English associated with its written mode. Comparisons are set out in Table 4.4 below.

Table 4.4: Comparison of interpersonal resources in Western Desert and English.

WDC 4.3–4	Mood	IFG 4.1–4
<p>Imperative: mood person: addressee/speaker/ addr.+speak./ non-interactant.</p> <p>Orientation, force, evidentiality are imperative options to grade proposals.</p> <p>Indicative: declarative/interrogative: yes-no/ <i>nya</i>- (participant/ circumstance/ process).</p> <p>Probability and ability only available as indicative options.</p> <p>Tone realises yes-no/declarative contrast and delicate mood options.</p>		<p>Imperative: mood person: addressee/speaker/ addr.+speak.</p> <p>Modulated declaratives required to obligate non-interactants and grade proposals.</p> <p>Indicative: declarative/interrogative: yes-no/ wh- (participant/ circumstance only).</p> <p>Yes-no/ declarative contrast realised by Subject+Finite and tone in spoken mode.</p> <p>Dissociation of lexicogrammatical system of MOOD and tonal system of KEY.</p>
WDC 4.5–7	Polarity and Modal Assessment	IFG 4.3–5
<p>Negative polarity neutralises lexicogrammar of mood, but mood is still realised by tone.</p> <p>Modal assessment: frequency/degree/reality/continuity/ responsibility/deference/desire (finite set of lexical options).</p>		<p>Negative polarity and modality realised in Finite element.</p> <p>Four modality systems independent of mood—probability/usuality/obligation/ readiness realised by modal verbs and Adjuncts.</p> <p>Modal assessment: time/typicality/obviousness/intensity/degree (large lexical set).</p>
WDC 4.3.6	Interpersonal metaphors	IFG 10.4
<p>Grammatical metaphors for proposals, realising explicitly subjective/objective orientation or obliqueness; realised by mental projection/interrogative clauses/declarative clauses.</p>		<p>Metaphors of modality realising explicitly subjective and objective orientations for proposals and propositions; realised by mental projections/projected facts.</p> <p>Large lexis for objectifying modality.</p> <p>Metaphors of mood: very large verbal lexis for specifying speech functions.</p>
Interpersonal group rank		
<p>Epithets and Qualities may be amplified by Intensifiers and/or tone contours.</p>		<p>Very large set of lexical resources for appraisal in nominal and adverbial groups (Martin 1999b)</p>

Examples of alternative realisations of interpersonal functions include:

- i) directing obligation at non-interactants by optative imperative mood person in Western Desert and modulated declaratives in English,
- ii) modulating orientation at morpheme rank in Western Desert imperatives, e.g. *ana-ma* 'should go', and at group and clause rank in English modality, e.g. 'you should do, it's expected you do...'

iii) disclaiming responsibility for utterances at word rank in Western Desert *kunyu*, and clause rank in English 'it's said, they say...'.

While the English declarative realisations of modulation are alternative to its imperative realisation in Western Desert, they also diversify options for conflating modulation with systems only available to declarative clauses such as tense.

In addition to the tone contrasts available as interpersonal resources in both languages, the most important examples of diversified realisation in English are:

- i) the lexicogrammar of mood, i.e. +/- Mood element and Subject-Finite order,
- ii) lexicogrammatical realisations of modality, modal assessment and affect at group rank (Macken-Horarik 1996, Martin 1999b).

I have been at pains to point out that Western Desert has a rich system of interpersonal resources for negotiating status, contact and affect, including a variety of interpersonal metaphors. However there is no question that English has recently evolved in the context of a very complex stratified system of social institutions. One outcome of this is the diversification of lexical resources for assessing and appraising, at clause and group rank. This is associated with the evolution of written text, particularly of literature (Macken-Horarik 1996) but also of philosophy (Wignell 1997), science (Rose 1996) and administration (Iedema 1996). Another outcome is the proliferation of metaphors of modality in certain institutional registers. This is brought out very strongly in two contexts that cause difficulty for Anangu learners: the classroom discourse of teachers (Gray 1990, 1999, Rose 1999), and bureaucratic correspondence (Martin 1991). On one hand, teachers need to be aware of the cultural specificity of the interpersonal metaphors they use, and explicitly model their functions for students in contexts of use, particularly in school classrooms. On the other, adult educators in particular also need to be aware of the proportionalities between congruent and metaphorical realisations of modality, and unpack and model interpersonal metaphors in administrative and other written registers that adult (and secondary school) students need to engage with.

5 *Experiential resources*

5.1 Introduction

The region of Western Desert grammar described in this chapter is the transitivity system, the set of grammatical resources for construing experience as processes or relations involving various types of entities and circumstances. The transitivity system includes two general independent systems: FIGURE TYPE and CIRCUMSTANTIATION. The term **figure** is used here to refer to the general experiential concept of a process or a relation realised by a clause in the Western Desert language (see Halliday & Matthiessen in press). Simultaneously with its textual and interpersonal functions, described in Chapters 3 and 4, the clause has evolved to realise a process or relation that involves one or more participants, and is potentially associated with one or more circumstances.

These experiential elements of each clause are realised at group and word rank by distinct classes of words and groups: process by a verb (complex), participants by nominal groups, and circumstances by adverbial or nominal groups. The functions of participants and circumstances are distinguished by inflections of the nominal groups realising them. Unlike textual and interpersonal functions, neither intonation nor constituent order play any part in the realisation of transitivity functions. Experiential meanings are realised entirely by configurations of classes of word (groups) and their inflections.¹

5.1.1 *Experiential elements*

To this point in the survey it has been sufficient to label the transitivity roles in a clause, in very general terms, as Process, Medium, Range and Circumstance. We have seen that, from the perspective of textual organisation, the Medium is the core participant in a clause, typically identified in the Theme of each clause as it is tracked through a text, and realised by the unmarked ACTIVE form of personal pronouns (formalist 'nominative' case). Every clause involves a Medium, whether it is explicitly realised in the structure or not. From the perspective of experiential meaning, the Medium is the participant which acts, senses, says, exists, or is assigned an attribute or identity. We have also seen that a clause represents one

¹ With respect to realisational strategies for experiential functions, Western Desert differs from those SE Asian languages which realise some lexical experiential contrasts by tone, and other languages such as English which realise some grammatical experiential contrasts by constituent order. However Western Desert is comparable with many other languages that realise experiential functions by means of word classes and their inflections rather than constituent order or tone.

of these types of processes or relations between entities. In a process clause, the Process in which the Medium is involved is also an obligatory element of the clause [5:1].

- [5:1] *kuniya pulka alatjitu tjarpa-ngu*
utterly big python did enter
Medium Process
An utterly huge python entered (a burrow).

We have also seen that a process figure may involve a Range as well [5:2].

- [5:2] *tjana putu kunyu waru mantji-ningi*
they unable it's said fire were getting
Medium Range Process
It's said they were unable to get the fire.²

In relational figures, the second obligatory role is a Range to which the Medium is related, such as the identity *waru kampantja* in example [5:3].

- [5:3] *ka Watar-nga waru kampa-ntja waru piti*
and Watar fire-burning fire place
Medium Range
And Watar is the Burning Fire, the Place of Fire.

Furthermore, relations may also be realised with a Process, such as the relation between *nganampa* 'our's' and its attribute *wankarra wiru* in 'all good' [5:4].

- [5:4] *ka nganampa kuwari wankarra wiru ngara-nyi*
and ours today all good is standing
Medium Time Range Process
And today everything is fine for us.

Figures may be associated with one or more Circumstances, such as *kuwari* 'now' in example [5:4] or *piti-ngka* 'into a burrow' in example [5:5]. (In each analysis that follows, circumstances will be labelled with their specific type, e.g. Place or Time.)

- [5:5] *piti-ngka -ni ø nguwanpa tjarpatju-nu*
into a burrow me (it) nearly did drag in
Place Range Medium Quality Process
Into a burrow I was nearly dragged by it.

Finally we have seen that a relation may be between the Medium and a Circumstance, such as *manta nyanga-ngka* 'in this land' in example [5:6].

- [5:6] *anangu tjuta nyina-ngi manta nyanga-ngka*
many people were sitting in this land
Medium Process Place
Many people were in this land.

So in a clause representing a process, the nucleus consists of a figure of Medium+Process, with optional Range and Circumstance; while in a clause representing a relation, the nucleus consists of Medium+Range or Circumstance, with optional Process.

² Textual elements such as *ka*, and interpersonal elements such as *putu* and *kunyu* have no experiential function in the clause, and so are not labelled in the transitivity analysis.

As discussed in §2.4.2.1, these are varieties of 'orbital' structures, in which Medium and Process or Range constitute the nucleus of the figure, with Range and/or Circumstances as optional and more peripheral (Martin 1992, 1996b). The functional relation between the elements of this figure is realised paradigmatically, e.g. by the class of wording that realises them, (pro)nominal, verbal or adverbial, as well as by structural markers such as 'case' inflection or pronoun form. The relative ordering of elements plays no role in the realisation of the transitivity structure, so that any element may potentially occur at any point in the clause. Any unmarked ordering such as so-called 'SOV' has textual implications only. We can represent the general functional potential of process figures as an orbital structure with Medium+Process nucleus (Figure 5.1), and relational figures with a Medium+Range nucleus (Figure 5.2).

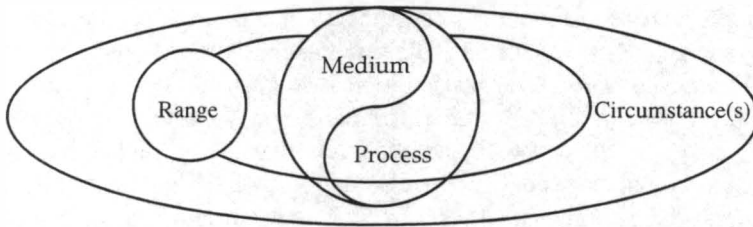


Figure 5.1: General orbital structure potential of process clauses

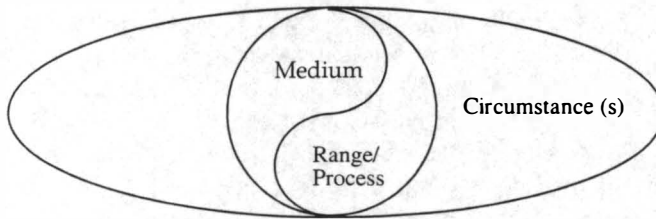


Figure 5.2: General orbital structure potential of relation clauses

5.1.2 Types of figures

These generalised models of experiential figures represent only the bare bones of the semantic potential of the TRANSITIVITY system. The goal of this chapter is to reveal the richly elaborate model of experience that the TRANSITIVITY system in the Western Desert construes. Most generally the grammar distinguishes three types of figure—actions, significations and relations. As with the action processes exemplified in [5:1], [5:2] and [5:5], signifying processes are realised by a Medium+Process nucleus, but with the crucial differences that i) the Medium must be a conscious entity (typically human), and ii) the signifying process can project ideas and locutions. Relations may be realised simply by contiguity of elements, or with processes of inception and stance. Within each type of figure there are finer distinctions in types of doing, signifying and relating, each involving a unique set of participants. There is also a range of circumstances that may freely associate with different types of figures.

5.1.2.1 Recognition criteria for figure types and participant functions

General recognition criteria for distinguishing figure types include:

- i) whether the figure involves a process,
- ii) the type of process realised by the verb,
- iii) the type of entity instantiating the Medium,
- iv) the inherent number of participants,
- v) the inflection of (pro)nominal groups realising the participants,
- vi) the potential for projection of locutions or ideas.

These criteria include grammatical constituents at the ranks of clause complex, group, word and morpheme, all of which contribute simultaneously to the meaning of the clause (see Hopper & Thompson 1980, for a typological survey of realisational resources for transitivity). From these multiple resources for realisation, a complex grammar of experience emerges. This system includes three general types of 'goings on', involving eighteen distinct participant functions, each specific to process type. Associated with figures are sixteen types of circumstances which combine relatively freely with each figure.

We can also specify the types of roles that Medium and Range play in each figure type, as well as the types of Circumstances. The specific roles that Medium plays include acting (Actor), sensing (Senser), saying (Sayer), or the Carrier to which an attribute is ascribed, or the Value to which an identity is assigned. Specific types of Range on the other hand represent the entity that the process or relation is extended to, i.e. the entity that is acted on (Goal), given to (Recipient), sensed (Phenomenon), said (Verbiage) or said to (Receiver), or the Attribute ascribed to a Carrier, or Token assigned to a Value. Participant functions specific to figure types are correlated in Table 5.1 below with generalised nuclear functions of Medium, Range and Agent.³

Table 5.1: Participant functions by figure types

Figure type		Medium	inner Range	outer Range	Agent
ACTION	effective	Actor	Goal	Recipient	
	non-effective	Actor	Behaviour	Domain, Source or Target	
SIGNIFICATION	verbal	Sayer	Verbiage	Receiver	
	mental	Senser	Phenomenon		Inducer
RELATION	attributive	Carrier	Attribute		Attributor
	identifying	Value	Token		Assigner

³ Note the contrasts in Table 5.1 with agency in English, in which Actor is construed as the agent of effective actions, Phenomenon may be the agent of sensing, and Token is the agent of identifying. Only in three marginal clause types in Pitjantjatjara is one participant explicitly agentive—induced mental reactions and caused relations. In contrast to the focus on causation of effective processes in modern English, effective actions in Pitjantjatjara are concerned with the result of the process on a Goal. The Pitjantjatjara model of experience is primarily transitive—concerned with types of extension of processes and relations, in contrast to the ergative model of English described by Halliday (1994a). For this reason I have classed Goal in Pitjantjatjara as a type of Range (whereas in English a Goal may be Medium of middle material clauses). For the same reason, as discussed previously, the label 'agentive subject' or 'A' applied in formalist grammars to the Medium of transitive clauses, and the associated characterisation of Australian languages as 'ergative' (e.g. Dixon 1979, 1980, 1994) may be misleading.

This variety of figures and circumstances constitutes the semiotic building blocks of a cryptogrammatical theory of experience, a theory that has evolved out of the accumulated experience of the Western Desert peoples over millennia. Of course it is not construed in each instance as a taxonomically organised theory, rather certain regions of the theory are instantiated as each text unfolds, so that the theory as a whole is only accessible through a corpus of such instantiations. One advantage of text corpus analysis is that we are able to see the relative frequency of each figure type and circumstance in various types of discourse. Some genres privilege certain figure types, such as actions in instructional texts, or relations in descriptive ones. Narratives on the other hand, tend to display an even spread of figure types, that may vary between stages of the narrative.

This is a very different perspective on the analysis of experience from that suggested by dictionaries of Australian languages, in which action verbs predominate by sheer variety, as well as various types of natural and cultural entities (e.g. the Institute for Aboriginal Development's *Pitjantjatjara/Yankunytjatjara to English Dictionary*, 1992). The lexical perspective on experience complements the grammatical perspective I have outlined above, as more or less delicate categorisations of general transitivity functions. For example, in the signifying and relational domains, a small range of verbs realise general classes of saying, perceiving, reacting, being and having. Certain types of action are also realised by a few general verbs, such as giving or gesturing. Other types of actions, such as moving, creating or 'sounding' have a large range of lexical options.⁴

5.1.2.2 Transitivity functions and case inflections

As discussed in §2.6.3.2 above, the overall function of nominal inflections is to distinguish participant and circumstantial functions between multiple nominal groups in certain transitive clauses. These include effective actions, non-projecting verbal and mental processes, and some caused relations. In such clauses, the entity functioning as Range may be equally capable of functioning as Medium (e.g. 'the boy saw the woman'), so it must be distinguished by case inflection.

In intransitive clauses, the Medium takes the unmarked form. The unmarked form for **personal pronouns** is ACTIVE [5:7].

- [5:7] *munu -la nganana-ø mala-ngka waintari-ngu*
 and we we-ACTIVE afterwards did travel without stopping
 Medium **Time** **Process**
 And as for us, afterwards we kept moving ahead.

The unmarked form for **common nominals, demonstratives and proper names** is NEUTRAL [5:8].

⁴ The abundance of action verbs in wordlists is one factor in Dixon's (1980) narrow definition of transitivity in Australian languages as verbs being 'strictly transitive or intransitive'. Formalist assumptions about the relation between wording and meaning derive partly from the descriptive tradition of defining words and affixes in lists. Whereas discourse analysis displays the semantic functions of configurations of words in the context of text, formalist theories of meaning, such as Wiezbiercka (1972) and Goddard and Wiezbiercka (1994), attempt to interpret meaning by decontextualising and decomposing words, and assigning English glosses to them, as in a dictionary.

- [5:8] *ka* *kutju-ø* *a-nu*
 and (other) one-NEUTRAL did go
 Medium **Process**
 And the other one went.

In most transitive clauses, it is the Range that takes NEUTRAL form, while Medium takes ACTIVE form, irrespective of whether either of these participants is a common nominal [5:9], demonstrative, proper name or personal pronoun [5:10].

- [5:9] *wati kutjupa tjuta-ngku* *kuli-ni* *wati kutju-ø*
 many different men-ACTIVE think one man-NEUTRAL
 Medium **Process** **Range**
 Various men thought of one man.

- [5:10] *ka* *-ya* *palu-nya* *putu mantji-ra*
 and they-ACTIVE it-NEUTRAL unable getting
 Medium **Range** **Process**
 And they were unable to get it.

While formalist descriptions ascribe different case labels to personal pronouns 'nominative/accusative' and the rest 'ergative/absolutive', these are statements about form only, despite the semantic connotations of labels like 'ergative'. It is misleading to label an inflection on Actors, Sensors and Sayers as 'ergative', and their function as 'agent' or 'agentive subject' ('A'), because the model of transitivity in Western Desert (and other Australian languages) is not ergative but transitive. Transitive processes are construed by the system as extended to Ranges, not caused by Agents (with the possible exception of relations and mental reactions that are caused by an additional agent).

The difference in inflection patterns between personal pronouns and other nominals in Australian languages is a product of their relative frequency in different functional roles (also pointed out by Silverstein 1976, although given a different interpretation as an 'ergativity hierarchy'). Personal pronouns most frequently function as Medium, and are also by far the most common realisation of Medium (see discussion in §3.3.1). Because the role of Medium is typically the 'actualiser' of the figure, i.e. Actor, Sensor, Sayer, Carrier or Value, the unmarked form for personal pronouns is ACTIVE, and when functioning as Range they are overtly inflected as NEUTRAL with *-nya* as in example [5:10] above.

Common nominals on the other hand, which denote classes of entities, are most likely to function as Range, less often as Medium in intransitive clauses, and least often as Medium in transitive clauses (see Hopper & Thompson 1980). Common nominals therefore take NEUTRAL case as their unmarked form, and they are overtly inflected as ACTIVE with *-ngku*, when functioning as transitive Medium as in example [5:9] above. Demonstratives follow the same pattern, since they may also denote very general classes of entities, and often occur as Medium in intransitive clauses, but infrequently as Medium in transitive clauses (see discussion in §3.2.2).

Proper nominals, naming people and places, follow the same ACTIVE/NEUTRAL pattern as common nominals, except that their NEUTRAL case is overtly inflected as *-nya* (or *-nga* if the lexeme ends in a nasal or liquid, as in example [5:3'] below). This is because the uninflected form of proper names functions interpersonally as Vocative, e.g. addressed in a call *Yami!*. When they are not being addressed, people and places are always referred to with inflections,

e.g. *Yami-nya*, *Yami-lu*, etc. Proper names for both people and places follow this pattern, although place names rarely function as Vocatives.⁵

[5:3']	<i>ka</i>	<i>Watar-nga</i>	<i>waru kampantja</i>	<i>waru piti</i>
	and	Watar-NEUTRAL	fire burning	fire place
		Medium	Range	

And Watar is the Burning Fire, the Place of Fire.

As discussed in §2.6.3.2, GENITIVE and LOCATIVE inflections function differently in different grammatical environments. They contribute to the realisation of participant functions, such as Receiver [5:21] and Phenomenon, but also realise circumstantial meanings such as Place and Purpose. The GENITIVE morpheme also functions at group rank to realise possessive Deictic (as in English, 'my thing', 'Jimmy's thing') and at clause rank to realise a possessive Token (as in English, 'mine', 'Jimmy's'). The circumstantial functions of GENITIVE and LOCATIVE inflections, as well as a variety of other inflections that distinguish types of circumstance, are discussed further in §5.5 on CIRCUMSTANTIATION. All these inflections will be assumed in the examples that follow. Rather than label the case frame for each interlinear gloss as in traditional formal descriptions, I will simply give English glosses with function labels below.

5.1.2.3 Text example

As a starting point for exploring the cryptogrammar's theory of experience, I will begin by presenting a text from the perspective of its experiential meanings. The following Text [5:11] is an extract from a traditional narrative, chosen because it displays a representative cross-section of experiential resources. The story begins with two sisters busily digging out burrows looking for small game. One sister tells the other to go and fetch a long stick *wili*, for feeling into burrows, but while going to do so she finds a burrow made by two *wanampi* serpents, gigantic mythic pythons that dwell in the sacred waterhole of *Piltati*. These *wanampi* are actually the sisters' own husbands who have transformed themselves. In this extract the woman sees the tail of a *wanampi* lying in the mouth of the burrow, and mistakes it for the tail of an ordinary desert python *kuniya*. The selection in figure type is specified to the right of each clause, in square brackets, and transitivity functions are labelled in bold beneath each group. Ellipsed participants are glossed in brackets and also given functional labels, in order to make the transitivity functions clear.

Text [5:11] *Piltati* (extract 1) told by Nganyintja

				Figure type
1	<i>ka</i>	<i>kangkuru-rara panya kutjara</i>	<i>tjawa-ningi</i>	[action]
	and	those two sisters	were digging	
		Actor	Process	
		...and those two sisters were digging.		

⁵ One context in which place names do function as Vocative, is when they are used to denote a person, typically a senior man, who is from that place. The reason that so many Aboriginal place names all over Australia end with the NEUTRAL inflection *-na* or *-nga* is that this is the form in which they were spoken by indigenous informants and unwittingly recorded by Europeans, rather than as the uninflected Vocative.

- =2 *watarku minyma kutjara tjawa-ningi tjawa-ra tjawa-ra* [action]
 heedlessly two women were digging digging digging
Quality Actor Process Duration
 Heedlessly the two women were digging, continuously.
- +3.1 *ka ø watja-nu* [signification]
 and (one) commanded
Sayer Process
 Then one sister told the other,
- "3.2 *ø wanyu wili mantji-la* [action]
 (you) 'please' long stick fetch-!
Actor Goal Process
 "Please fetch a long stick."
- +4 *ka kutju a-nu* [action]
 and one did go
Actor Process
 So the other sister went,
- +5.1 *munu ø anku-la nya-ngu* [signification]
 and (she) going along did see
Senser Process
 and while going along she saw,
- '5.2 *nyaa nyangatja pupa-nyi* [relation]
 "what? this is crouching"
Attribute Carrier Process
 "What is this here?"
- '5.3 *ø wanampi-purunpa* [relation]
 "(it) like a *wanampi* serpent"
Carrier Attribute
 "It is like a *wanampi* serpent."
- =6 *kuniya -lta palku* [relation]
 a desert python at that mistakenly
Attribute Carrier
 She mistook it for a desert python.
- =7.1 *piti tjaa ø nya-ngu* [signification]
 a mouth of a burrow (she) did see
Phenomenon Senser Process
 It was the mouth of a burrow that she saw,
- '7.2 *nyangatja piti tjaa* [relation]
 "this (is) a mouth of a burrow"
Carrier Attribute
 "This is a mouth of a burrow."

The story of Text [5:11] unfolds as an *activity sequence* (Martin 1992), but this is not simply a sequence of material events. Three events are material actions (clauses 1–2 'digging', 3.2 'fetching', 4 'going'), but other events include verbal interaction (clause 3 'commanding') and perception (clauses 5–7 'seeing'). The sequence 3–4 construes verbal

interaction as an exchange, with one sister demanding a service (clause 3), to which the other complies by going (clause 4). The discursive function of including this exchange in the story is to ground the discovery of the *wanampi* in the sisters' relationship. It is the younger sister who finds the *wanampi* burrow, but this is the result of the older sister demanding a service of her. What the younger sister perceives are things—something that looks like a *wanampi* (clause 5.3), but which she mistakes for a *kuniya* (clause 6), and the mouth of burrow *piti tjaa* (clause 7). But these perceptions are construed not merely as things. Rather the story tells us what the sister thought as she saw them, using the same resources for quoting speech as in the verbal interaction—"What is this?" she asks herself, "It's like a *wanampi*." and then states to herself "This is the mouth of a burrow." But note that these internal questions and statements are not projected by a process of saying as in clause 3, but by the process of seeing itself, as though perceiving were experienced by the Senser as inner speech.

This enables the perception to be expanded in two dimensions. Firstly it enables the storyteller to express the Senser's feeling in response to a perception, by means of mood and intonation, e.g. surprise, horror, joy; in clause 5.2 a puzzled response is realised with a *nya*-question. Secondly it enables the perceived phenomenon to be grounded in a concrete situation, by means of a reference item as Carrier in an attributive relation—*nyangatja* 'this' (5.2, 7.2) or implicit 'it' (5.3). This construes the woman's mental processing as a sequence of perceptions of relations between features of the environment, and lexicalised categories of things, such as *wanampi* or *piti tjaa*. Perception is construed here as a linguistic process of classifying and labelling entities; the entity perceived instantiates a lexicalised class of phenomena.

This conscious activity of ascribing class labels to perceived phenomena is made explicit in the *nya*-question (5.2), in which the Senser asks herself what kind of thing 'this' is. The same strategy of ascribing a label to a referent is also used in the comment in clause 6, in which the Carrier is the anaphoric clitic *-lta* 'that' (6) and its Attribute is the misapprehended *kuniya*. This construal of perception as classification of phenomena is further expanded by the use of comparative attribution in 5.3, which implies that the perceived entity shared some characteristics with the category *wanampi*, but not enough to label it categorically, rather it is *wanampi-purunypa* 'like a *wanampi*'. (Earlier in the story the specific resemblance was made explicit, as both *wanampi* and *kuniya* have short thin tails at the end of their bodies.) The discursive function of the woman's misapprehension follows this extract: thinking that it is merely a *kuniya*, she attempts to pull it out, but is nearly dragged into the burrow herself, leading to the exchange with her sister presented as Text [3:3] above.

It is in the context of discourse that the Western Desert theory of experience immanent in the grammar of transitivity becomes apparent. Most generally it is experienced as process—the meaning of a clause as a quantum of change, or as a relation of attribution or identity that may be more persistent. But material processes and relations in our external environment are not the only types of experience grammaticalised in the TRANSITIVITY system. the experience of perceiving them is too, as is the experience of social interaction. The potential of the system to construe reality is drawn on dynamically as a text unfolds, to construe experience as sequences of such figures. Each sequence represents an instance in the ongoing history of experience in the culture.

But despite the complexity of experience construed in the patterns of transitivity in Text [5:11], it is by no means the whole story. Each figure is construed as constituted of the elements process, participants and circumstances. Reality is further categorised, identified and processed within each of these elements. Participants may be persons, things or qualities that may be modified with qualities, number and deixis. Processes may be inflected to

indicate time and duration, and may also be complexed to realise lexical items unique to the language, such as *anku-la nya-ngu* 'saw while going along' (5.1). When relations require temporalising, they may be realised by verbs of stance, such as *pupa-nyi* 'is crouching' (5.2), or *nyina-nyi* 'sitting', *ngara-nyi* 'standing', or *ngari-nyi* 'lying'.⁶ Circumstances construe a range of experiential categories that may be associated with the clause nucleus or a participant. The general set of circumstantial options are presented in the following section, before turning to analyses of figure types.

We can begin our survey of the TRANSITIVITY system, by dissociating representative figures and circumstances from their contexts in this text and grouping them with others that are alike, including actions, significations and relations.

5.1.2.4 ACTION

There are two general types of 'doing' clauses, i) **effective**, where the Process+Actor nucleus impacts in some way on its Goal [5:14], and ii) **non-effective**, where no such impact is construed [5:12] and [5:13]. In both types of action, the specific role of the Medium is **Actor**, while in effective actions the entity that is effected is **Goal**.

- [5:12] *ka kutju a-nu*
 and (other) one did go
Actor Process
 And the other one went.

- [5:13] *ka kangkuru-rara panya kutjara tjawa-ningi*
 and those two sisters were digging
Actor Process
 And those two sisters were digging.

- [5:14] *ø wanyu wili mantji-la*
 (you) 'please' long stick fetch-!
Actor Goal Process
 "Please fetch a long stick."

5.1.2.5 SIGNIFICATION

There are also two general sub-types of 'signifying' illustrated in Text [5:11], i) **verbal** processes in which the role of Medium is **Sayer** [5:15] and ii) **mental** processes in which the role of Medium is some kind of **Senser**. In example [5:16], the specific type of sensing is perception: seeing. These examples include not only the signifying clauses, but their projections as well. I have given function labels to the signifying clauses, since these are under focus, but the projected clauses may be of any type so I have labelled them only by punctuation as "locution" or 'idea'.

⁶ It is interesting that Indo-European relational verbs are also derived from verbs of stance.

[5:15]

1 *ka* \emptyset *watja-nu*
and (one) did command
 Sayer Process

Then one sister told the other,

“2 *wanyu* *wili* *mantji-la*
 ‘please’ long stick fetch-!”
 “Please fetch a long stick.”

[5:16]

1 *munu* \emptyset *anku-la nya-ngu*
and (she) going did see
 Senser Process

and while going along she saw,

‘2 *nyaa* *nyangatja* *pupa-nyi*
 ‘what?’ this is crouching’
 “What is this here?”

5.1.2.6 RELATION

There are two types of ‘relating’ clauses exemplified in Text [5:11]: with or without a Process. The former represents the relation as inherently **persistent** in time [5:17], [5:18] and [5:19], while the latter represents the relation as **unfolding** [5:20]. Both types attribute the Medium to a class of entities (the Range of the relation), either a specific class of things *piti tjaa* ‘mouth of a burrow’, *kuniya* ‘desert python’ or qualities *wanampi purunpa* ‘like a *wanampi* serpent’, or the open class of *nyaa* ‘what kind?’. These things and qualities are given the general label **Attribute**, while the role of Medium is the **Carrier** of the Attribute.

[5:17] *nyangatja* *piti tjaa*
 this burrow mouth
 Carrier Attribute
 “This is a mouth of a burrow.”

[5:18] *kuniya* *-lta* *palku*
 desert python that mistakenly
 Attribute Carrier
 She mistook it for a desert python.

[5:19] \emptyset *wanampi purunpa*
 “(it) (is) like *wanampi* serpent”
 Carrier Attribute
 “It is like a *wanampi* serpent.”

[5:20] *nyaa* *nyangatja* *pupa-nyi*
 “what?” this is crouching
 Attribute Carrier Process
 “What is this here?”

So we can already say at this point that there is a taxonomically ordered model of reality construed by the transitivity system in the Western Desert language. Its most general categories are:

- i) material actions such as 'going', 'digging' and 'getting';
- ii) semiotic processes such as 'saying' and 'seeing'; and
- iii) relations between individual entities and classes of qualities and things, such as '*wanampi* serpents', 'desert pythons' and 'burrows', that they belong to.

The relational type of figure construes the taxonomic organisation of the language system and the instantiation of its categories as individual instances: it construes each specific Carrier, e.g. *nyangatja* as an instance of a general semantic category, its Attribute, e.g. *kuniya* (see Halliday 1996a). The second type embodies the structural axis of the language as social semiotic process: it construes saying and sensing as types of semiotic processing such as 'commanding' or 'seeing', with an output as the wording of an exchange move, e.g. a command "please fetch a long stick!" or question "what is this crouching?". Only the first type of figure apparently 'represents' categories of material reality, embodying the traditional linguistic notion of 'referential' meaning, but as we shall see, part of its potential is also to re-construe semiotic processes as material actions.

At the next level of delicacy the model we have seen so far distinguishes between:

- i) actions that a) have an effect on a Goal and b) those that do not, construing a theory of 'doing/ doing and effect', where an affective process of doing is construed as causing an effect on a Goal;
- ii) semiotic processing that construes a theory of language as a) a social semiotic exchange of mood options between Sayer and potential Receiver, and b) exchange moves internal to Sensors' consciousness making the same mood selections;
- iii) relations that persist in time (no process) and those that unfold (as process). There is also a primary distinction in relations, not exemplified in Text [5:11], between a) attributive relations and b) those that identify an entity by some unique criterion such as name, role or ownership.

5.1.2.7 CIRCUMSTANTLATION

Independent of these types of figure, the TRANSITIVITY system also theorises types of circumstances they may be associated with. Circumstances are associated with a figure by various types of logico-semantic relation. They may for example:

- i) elaborate the figure with a Quality or a Comparison,
- ii) extend it with an Accompaniment or Possession,
- iii) enhance it with Time, Duration, Place, Reason or Purpose.

(Note that I have also drawn on Texts [3:3] and [3:4] for examples here.)

5.1.2.7a Elaborating circumstances

- [5:21] Quality
watarku minyma kutjara tjawa-ningi tjawa-ra tjawa-ra
 heedlessly woman two were digging digging digging
Quality Actor Process Duration
 Heedlessly the two women were digging, continuously.

- [5:22] Comparison
 \emptyset *wanampi purunpa*
 (it) like *wanampi* serpent
Carrier Comparison (Attribute)
 It is like a *wanampi* serpent.

(As noted above, an Attribute may be any type of circumstance, as well as a thing or quality.)

5.1.2.7b Extending circumstances

- [5:23] Possession
munu -ya paluru tjana waru kurakura kanyi-ningi tili maru-tjara
 and -they those ones useless fire were having with black firebrands
Carrier Attribute Process Possession
 But at that time those people had useless fire, with black firebrands.

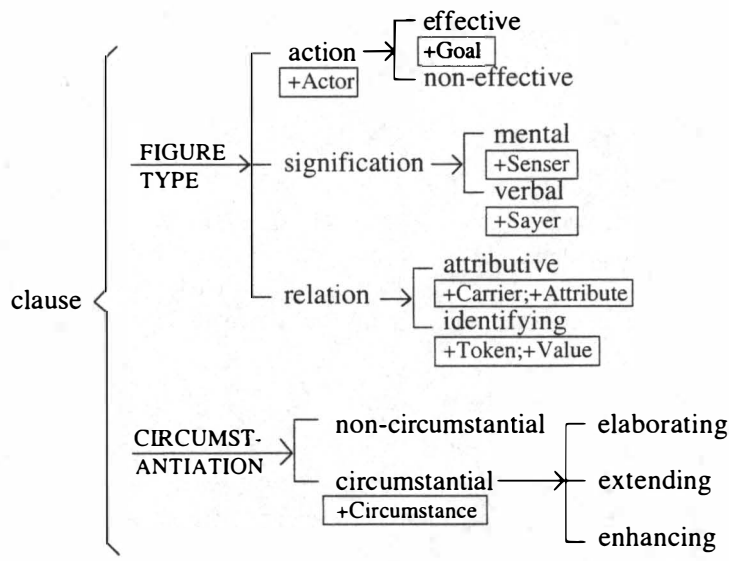
5.1.2.7c Enhancing circumstances

- [5:24] Time
munu -la nganana mala-ngka waintari-ngu
 and we we afterwards travelled without stopping
Actor Time Process
 And as for us, afterwards we kept moving ahead.
- [5:25] Place
anangu tjuta nyina-ngi manta nyanga-ngka
 people were sitting in this land
Carrier Process Place (Attribute)
 People were living in this land.
- [5:26] Purpose
pulkara tjana-la wangka-ngi piranpa tjuta-ngka nganampa manta-ku
 strongly to them were talking to the whites for our land
Quality Receiver Process Receiver Purpose
 We were talking strongly to them, to the whites, for our land.
- [5:27] Duration
watarku minyma kutjara tjawa-ningi tjawa-ra tjawa-ra
 heedlessly woman two were digging digging digging
Quality Actor Process Duration
 Heedlessly the two women were digging, continuously.

The grammar's theory of logico-semantic relations that is exemplified here is overtly displayed by the distinct strategy for realising each group of circumstances. Elaborating circumstances are realised by adverbs or by the COMPARATIVE inflection *purunpa*. Extending circumstances are realised by the POSSESSIVE inflection *-tjara*. Enhancing circumstances are realised by the LOCATIVE inflection *-ngka* or GENITIVE inflection *-ku* by iterated processes.

5.1.2.8 General TRANSITIVITY systems

The general categories of experience construed in the systems of FIGURE TYPE and CIRCUMSTANTIATION are set out in System 5.1. These will be detailed in the following sections.

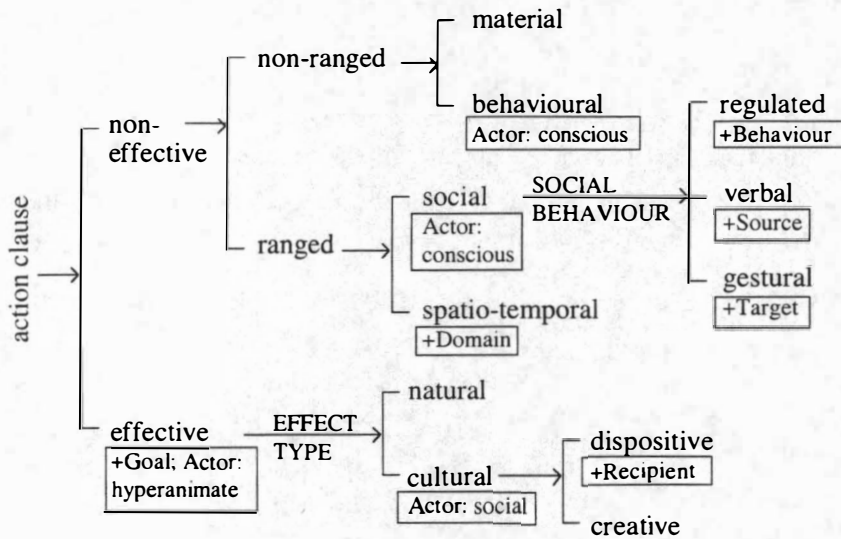


System 5.1: General options in TRANSITIVITY

5.2 ACTION

The ACTION region of the TRANSITIVITY system construes experience as actions of entities in space-time, that are material, social or social semiotic. The primary distinction is between effective and non-effective actions. Non-effective actions are either non-ranged, involving Actor alone, or they are ranged, involving a second participant that the process is extended to, but does not have an effect on. The most common type of non-effective action are material processes such as various types of moving or sounding. Non-ranged action may also involve semiotic behaviour, where the Actor is conscious and the Process is one of semiotic behaviour such as thinking, watching or talking. Ranged non-effective actions are of two general types. One involves spatio-temporal Domains of the action and the other social actions. Social action gives three types of social behaviour: regulated behaviour involving a Behaviour, which is a name for an activity such as games, songs or dances; verbal behaviour involving a Source that the Actor listens to; and gestural behaviour involving a Target that an Actor gestures at.

Effective actions are either cultural or natural. In natural effective actions, environmental phenomena are Actors, while in cultural ones the Actors are social animals (typically human). Cultural action may be creative: producing, transforming or transporting a Goal; or dispositive: exchanging a Goal with a third participant, a Recipient. These options are set out in System 5.2. Of all these options, the most frequent in discourse realised by the widest lexicon of verbs are effective: creative and non-effective, non-ranged material (the source of Dixon's 1980 'SOV/SV' binary transitivity model).



System 5.2: ACTION systems

5.2.1 ACTION text example

Effective and non-effective actions are exemplified in Text [1.2"] below, another extract from the *Piltati* myth. This extract exemplifies effective and non-effective action in the context of an activity sequence involving two men and two women. Experiential roles are labelled for each action clause, and their effectivity value is given to the right.

Text [1.2"] *Piltati* (extract 2)

Action type

- | | | |
|---|---|-------------|
| 1 | <i>wati kutjara kunyu kuta-rara nyina-ngi</i>
two men it's said brother-pair were sitting
It's said that there were two men who were brothers. | (relation) |
| 2 | <i>kungkawara kutjara ø alti-ngu, kangkuru-rara</i>
two young women (they) married sister-pair
Goal Actor Process Role
They married two young women who were sisters. | [effective] |

- 3 *wati kutjara pula a-nu malu-ku* [non-effective]
 they2 two men went for kangaroos
Actor Process Purpose
 Those two men went hunting for kangaroos.
- 4 *kuka kanyila-ku ø tati-nu puli-ngka* [non-effective]
 for wallaby game (they) climbed up in the hills
Purpose Actor Process Place
 For wallabies, that is, they climbed up in the hills,
- +5 *munu pula kuka kanyila kati-ngu* [effective]
 and-SM they 2 wallaby game brought back
Actor Goal Process
 and they brought back wallaby meat to the camp.
- +6 *ka pula mai-ku tjaru-ukali-ngu* [non-effective]
 and-SW they 2 for vegetable food descended down
Actor Purpose Process
 Meanwhile the other two went down to the plain, looking for vegetable foods,
- +7 *munu pula mai ili ura-ningi* [effective]
 and-SM they 2 fig food were collecting
Actor Goal Process
 and were collecting wild figs.
- +8 *munu pula mai β kati-ra α u-ngu wati kutjara* [effective:
 and they2 food bringing gave to the two men dispositive]
Actor Goal Process Recipient
 Then they brought the vegetable foods back and shared them with the two men.
- 9 *ngura-ngka alatjitu -ya nyina-ngi* (relation)
 right at that place they were sitting
 It was right at that place (*Piltati*) that they were living.
- +10 *munu kuka β wiya-ringku-la α ailuru-ri-ngu* (relation)
 and game finishing a drought began
 Then all the game was finished as a drought began.
- 11 *ø putu β tjawa-ra α pitja-ngi* [non-effective]
 (they) unable digging were coming
Actor Process
 Unable to dig anything up, the women were coming back to camp empty handed.
- +12 *munu pula kunyu pararitja-kutu a-nu* [non-effective]
 and they2 it's said far away went
Actor Place Process
 Then it's said they travelled far away,
- +13 *munu pula ma-antjakari-ngu* [non-effective]
 and they2 camped away overnight
Actor Process
 and camped away overnight.

- +14 δ *munu pula* *ngarin-tjanu-ngku* [non-effective]
 and they2 after sleeping
Actor Process
 Then after sleeping,
- γ *pungku-la* β *antjakaringku-la* α *wirkati-ngu* γ [effective]
 killing, camping out, finally arrived β and α [non-effective]
Process Process Process
 killing small game and camping out further, they finally arrived (at a distant place).

Material and creative actions predominate in Text [1.2"], in contrast with Text [5:11] above, in which there was a mix of action, signification and relation. This stage of the story is a sequence of the brothers and sisters acting purposefully in time and space, moving, stopping, performing (non-effective), and transforming, transporting or exchanging other entities (effective). These processes construe the socio-economic activities of the culture, explicitly contrasting the purposes, processes and objects of men's and women's economic activity: the men 'climb for game', the women 'descend for vegetable food', which they share on returning to camp.

The functions of action processes are set out in Table 5.2. To the left of the table are the more general functions that are realised grammatically, by the effectivity of the clause, and the roles of additional participants (e.g. Goal, Range, Recipient). To the right are the functions realised lexically, i.e. by the type of action realised by the verb, and the specific gloss given to the verb.

Table 5.2: Functions of action processes in Text [1.4"]

Grammatical functions		Lexical functions	
non-effective	non-ranged	moving	<i>a-</i> 'going', <i>tati-</i> 'climbing', <i>pitja-</i> 'coming',
		stopping	<i>antjakari-</i> 'camp away for the night', <i>ngari-</i> 'sleeping (lying)'
		performing	<i>tjava-</i> 'digging'
	ranged		<i>alti-</i> 'marrying (inviting/calling)'
effective	creative	transforming	<i>pu-</i> 'killing (hitting)'
		transporting	<i>kati-</i> 'bringing', <i>ura-</i> 'collecting', <i>wirkati-</i> 'arrive bringing'
	dispositive		<i>u-</i> 'giving'

Note that some of the lexical items tabulated here for Text [1.4"] may function differently in different grammatical environments. For example:

- Each verb is glossed with its lexical function in Text [1.4"]. Where the verb also has a more general lexical potential, this is given in brackets.
- Some verbs such as *tati-* 'climbing', *tjava-* 'digging' or *ura-* 'collecting' may function in either effective or non-effective clauses.
- Other verbs such as *ngari-* 'lying' or *kati-* 'bringing' may function in either action or relation clauses.

I will now survey each of the grammatical functions of action processes set out in System 5.2, beginning with non-effective action that is non-ranged, followed by ranged non-effective action and finally effective action.

5.2.2 Intransitive action

Non-effective non-ranged action gives the traditional category of 'intransitive' action clauses (although traditionally this category also includes signifying clauses that project locations or ideas, and do not have a nominal Range, as well as certain types of verbalised relations). I have distinguished two general options depending on the consciousness of the Actor and the signifying nature of the action: behavioural and material. The most frequent and largest range of processes is the latter so I will start with material actions.

5.2.2.1 Material intransitive actions

These include a very large range of processes such as various types of moving position, changing position, shape or state, behaving or sounding. All classes of concrete entities, people or things, may instantiate the role of Actor in intransitive actions. For example, even the ground may move and produce sound. 'Sounding' includes a relatively large verbal lexis delicately specifying each type of sound in the desert environment, with few general terms. The type of sound is realised as the verb stem (typically onomatopoeic), infixed with *-ma-*, e.g. *nguur-ma-nanyi*, 'snoring'. There are also many intransitive actions specific to people or anthropomorphic animals. Material intransitive actions include categories such as movement, change, sounding, posture and bodily behaviour.

5.2.2.1a Movement

- [5:28] *ka paluru a-nangi alatjitu titutjara*
 and he was going utterly continuously
Actor Process Quality
 And he kept right on going continuously, going and going,

- [5:29] *ka pula mai-ku tjaru-ukali-ngu*
 and-sw they 2 for food did descend down
Actor Purpose Process
 Meanwhile the other two went down to the plain, looking for vegetable foods,

5.2.2.1b Change

- [5:30] *nyanga kata-ngka-lta waru panya kampa-ngi*
 here on his head that fire was burning
Place Place Actor Process
 It was here on his head that the fire was burning.

5.2.2.1c *Sounding*

- [5:31] *punu panya walpa-ngka βuri-ra α takalmana-nyi*
 that tree in the wind is moving about making a knocking sound
Medium Place Process
 That stick is moving about making a knocking sound in the wind.

5.2.2.1d *Posture*

- [5:32] *munu ngintaka panya kananykananypa muti-ngara-ngi*
 and monitor lizard proudly was lying back with one knee up
Actor Quality Process
 And the monitor lizard was proudly lying back with one knee up.

5.2.2.1e *Bodily behaviour*

- [5:33] *ngayulu mina nuunpunga-nyi*
 I arm is twitching
Actor Process
 My arm is twitching.

Note that verb complexes such as example [5:31] *uri-ra takalmana-nyi* ‘moving about making a knocking sound’ denote a ‘complex process’ that functions as the single element, Process, in the transitivity structure of the clause. As with other group structures, the verbal group sequence contrasts with English, with the dependent non-finite verb *uri-ra* ‘moving about’ preceding the finite Head *takalmana-nyi* ‘is making a knocking sound’. This is discussed further in §6.5 below.

5.2.2.2 *Behavioural intransitive actions*

Intransitive behaviour includes processes of semiotic behaviour, e.g. *nyanganyi* ‘looking’, *kuli-* ‘hearing, thinking, feeling’, *wangka-* ‘talking’, verbs that may otherwise instantiate mental or verbal processes. Here, however, they are representing semiotic behaviour as material action, in the same way as motion or any other kind of ‘doing’, and do not involve a signified complement. On the other hand, they distinguish between types of entities that may participate in semiotic behaviour, and those that may not. Only conscious entities, i.e. animals, may participate in conscious or verbal action, e.g. the *kanyila* in example [5:34], drawing a primary distinction between types of entities as conscious or not.

- [5:34] *kanyila nyara kuli-ra para-nyanga-nyi*
 yon wallaby is listening looking around
Actor Process
 That wallaby over there is listening and looking around.

There are also certain conscious behaviours that do not function as mental or verbal processes, such as *watakurinyi* ‘forgetting’, exemplified in the first clause of [5:35].

- [5:35] *munta watakuri-nu -na nyaa -n wangka-ngu*
 sorry did forget I what? you did say
Process Actor Verbiage Sayer Process
 Sorry, I forgot. What did you say?

Another distinction between verbal signification and verbal behaviour, is that the Actor in the latter may be any entity construed as 'talking', since this is not necessarily the same as 'saying'. For example, birds may 'chatter', although they cannot actually say anything to us [5:36], and even the wind is construed as talking, *walpa wiru wangkanyi* 'a sweet wind is talking (blowing)'. This metaphorical construal of the wind as a speaker resonates with the exceptional case of weather in effective action.

- [5:36] *ka-l ruuruutjitja tjulpu wangkawangka-nyi*
 and-that with a hooting sound bird is chattering
Quality Actor Process
 And that bird is making a hooting noise.

5.2.3 Ranged non-effective action

Non-effective action may be transitive, i.e. it is extended to a second participant but has no material effect on it.⁷ This is indicated overtly by the NEUTRAL inflection on common nominals, demonstratives or proper names functioning as Actor. The entity the action is extended to may be inflected as NEUTRAL or LOCATIVE, and the inflection, type of entity and type of process distinguish the options. The first choice is between spatio-temporal action and social behaviour. Social behaviour involves a conscious Actor who may participate in a socially regulated behaviour, listen to a verbal source or communicate with gestures.

5.2.3.1 Spatio-temporal domain

If the action is one of movement in space, then an entity functioning as **Domain** denotes the spatio-temporal domain or extent of this movement, as in example [5:37].

⁷ Ranged non-effective actions exemplify the shortcomings of Dixon's intransitive/transitive system, even on formal grounds. For example, despite its common occurrence in transitive clauses, Goddard (in Institute for Aboriginal Development 1992) classifies *tatini* 'climb' as an "intransitive verb", giving the following example [5:182] (glosses and labelling are mine):

- [5:182] *tjitji tjuta nyaratja punu-ngka tati-ni*
 yon children in a tree are climbing
Actor Place Process
 those children are climbing in a tree

This clause is translated by Goddard as "Those kids over there are climbing a tree", implicitly interpreting the clause as an Actor/Process/Range configuration. But in his example the 'tree' is not inflected neutrally as Range, but as a circumstance of Place with LOCATIVE inflection. The experiential focus is the Actor/Process 'children+climbing' nucleus; its domain ('tree') is more peripheral than if it had been inflected neutrally as Range. The same verb *tatini* 'climb' can function in a transitive clause in which the Actor is inflected as ACTIVE, where the process is construed as having an effect on a Goal, as in [5:183] below.

- [5:183] *Ilyatjari-lu pony tati-nu*
 Ilyatjari pony did climb
Actor Goal Process
 Ilyatjari mounted the horse

[5:37]	<i>ka</i>	<i>nyantju panya</i>	<i>wala winki</i>	<i>puli</i>	<i>tati-nu</i>
	and	that horse	very quickly	hill	did climb
	Actor	Quality	Domain	Process	
	And that horse mounted the hill really fast.				

Although Domain is topologically related to circumstances of Place and Time, it is overtly distinguished by the absence of a LOCATIVE suffix (e.g. Place in Text [1:2"] *tati-nu puli-ngka* 'climbed **up** the hills'). Domain is also topologically related to Goal, but clearly is not one, since although the action is extended to it, or rather over it, it does not have an effect on it. The process is not effective since the Actor is not inflected as ACTIVE. Since the Actor is distinguished lexically from Domain as a hyperanimate entity 'a horse', there is no need for a grammatical inflection (see critique of Dixon's "anti-passive" transformation in §A.2.3 below).

Domain is on a scale of involvement mid-way between a circumstance and an inner participant such as Goal (see Halliday 1994a:146–149, Martin 1992:130–131). Goal is an obligatory participant in effective actions, whereas the choice of Domain is optional in non-effective actions of movement (e.g. Text [1:2"] *pula mai-ku tjaru-ukali-ngu* 'they2 descended (the hills) for food'). Circumstances of Place and Time may enhance any process type; they are associated with but not involved in the process. The Domain on the other hand elaborates the process as the spatio-temporal domain of its unfolding. This configuration of nuclear Actor+Process elaborated by Domain is illustrated in Figure 5.3.

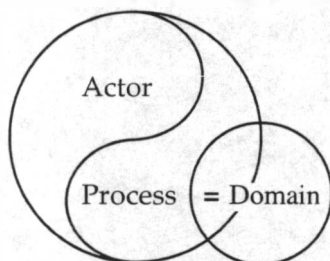


Figure 5.3: Nuclear figure of Actor+Process (=Domain)

5.2.3.2 Regulated social behaviour

Socially regulated behaviour includes structured social activities such as ceremonies and games. The Actor is typically human, frequently a group, and the class of social behaviour is generalised by the Process and specified by the nominal group functioning as **Behaviour**. The latter is an abstract entity, a second-order nominal metaphor for a fragment of experiential flux. The advantage of nominalising social activity is that an entity may be readily qualified within its nominal group, e.g. *inma irititja panya wiru* 'that wonderful ancient ceremony'. As in English behavioural processes, this nominal realisation enables it to be qualified in ways not available to verbal realisations (Halliday 1994a:147). A behavioural verb such as *inkanyi* 'playing' is required to indicate mood, tense and aspect, as in English 'sing a song, play a tune, have a shower' etc. There are a few such verbs in Pitjantjatjara, with a specific range of Behaviours associated with them, illustrated in examples [5:38] to [5:40].

- [5:38] *kungka tjuta inma inka-nyi*
 girls song are playing
Actor Behaviour Process
 The girls are singing a song.
- [5:39] *wati ninti pala inma irititja kantu-ni wirura*
 learned man ancient ceremony is dancing well
Actor Behaviour Process Quality
 That learned man is dancing the ancient ceremony well.
- [5:40] *nyitayara tjuta malu-malu inka-nyi*
 boys hunting game are playing
Actor Behaviour Process
 The boys are playing a hunting game.

As with Domain, the relation between Behaviour and the Actor+Process nucleus is elaboration, but it is more directly involved in the Process. The Process generalises a type of social behaviour and the Behaviour elaborates by specifying the type of social behaviour. The realisation of the meaning of process is shared between the functions of Process and Behaviour, illustrated in Figure 5.4.

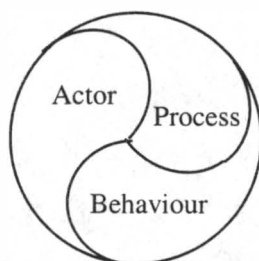


Figure 5.4: Nuclear figure of Actor+(Process=Behaviour)

5.2.3.3 Verbal behaviour

Verbal social semiotic action represents verbal exchange as behaviour, with the Actor receiving a verbal signal that is produced by a **Source**. The Process is *kulini*, here translated as 'listening'; the Actor is the listener, inflected as NEUTRAL, and the Source is the speaker, with LOCATIVE inflection, as in example [5:41] in which the SA state premier is listening to the people.

- [5:41] *ka panya Tonkin-tu kuli-ningi nyara anangu tjuta-ngka*
 and that is Tonkin was listening there to the people
Actor Process Place Source
 And, that is, Tonkin was listening to the people there.

Note that this type of process is realised in English by a phrasal verb; the preposition has drifted away from the participant and into the process, in order for it to be culminatively focused in active voice (discussed in §3.2.1 above). This is unnecessary in Western Desert since the Source (and other types of Range) may either precede or follow the Process. The following example [5:42] is from an exchange on the open-channel radio transceivers that

became an important part of Western Desert culture in the 1970s, before the arrival of STD telephones. (Note the extended final vowels on *kuli-nayi* typical of the register *alpiri*.)⁸

[5:42]

- A *Angatja-languru* *kuli-nayi*
 from Angatja are listening?
 Are you listening in Angatja?
- B *uwau* *nyuntu-la* *-na* *kuli-nayi* *Angatja-languru*
 yes! to you I am listening from Angatja
 Source **Actor** **Process** **Place**
 Yes, I can hear you from Angatja!

Instantiating the role of Source seems not to be an option for non-human animals. Since animals are capable of making sounds but not speech, they may be heard by humans, or other animals, but not apparently 'listened to'. In the Western Desert action model, the role of sound producer may be instantiated by virtually any entity, from the ground up, but the potential for being 'listened to' is a unique characteristic of people. In this case the relation between the Actor+Process nucleus and Source is one of extension, marked in this case by the LOCATIVE suffix *-ngka/-la*; the Source is construed by this inflection as more peripheral to the Process of listening than the Actor. The extending relation between Actor+Process nucleus and Source is illustrated in Figure 5.5.

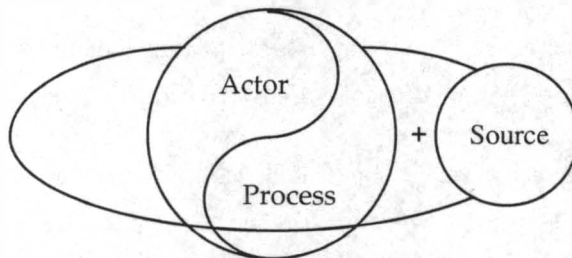


Figure 5.5: Extending relation between Actor+Process and Source

5.2.3.4 Social behaviour

In social behaviour, the process is a type of directed meaningful behaviour that need not be verbal, such as *ikaringanyi* 'laughing' or *mirani* 'shouting'. The entity this behaviour is directed at is a **Target**, inflected as LOCATIVE. Example [5:43] recounts an exchange pair involving verbal request and gestural response, illustrating the potential of gesture for instantiating an exchange move.

⁸ *Alpiri* is the type of formal register in Australian languages that leads Walsh (1997a) to contrast indigenous interaction styles as 'communal' with Anglo styles as 'dyadic'. However, as shown in Chapter 4, 'dyadic' interaction is also characteristic of Western Desert language, and is as much the basis of the grammar of mood and modal assessment as it is in English. Following Walsh's example of extrapolating from academic contexts in English, *alpiri* is in some ways comparable to the genre 'telephone conference', since there is no requirement for seeing the other speakers, and turn-taking is regulated by intonational cues alone. These are also the reasons that *alpiri* was able to be directly adapted to open-channel radio transceivers in the 1970s.

[5:43]

1	<i>wiya</i>	<i>ngayulu</i>	<i>palu-nya</i>	<i>tjapi-nu</i>
	no,	I	him	did ask
	No, I asked him,			
+2	<i>ka</i>	<i>paluru</i>	<i>ngayu-la</i>	<i>ikari-ngu</i>
	and-sw	he	at me	did laugh
		Actor	Target	Process
	and he laughed at me.			

Again the relation between nucleus and Target is extension, marked by the same LOCATIVE inflection as Source.

5.2.4 Effective actions

Effective action means that the Actor+Process figure impacts on an obligatory second participant, the Goal which the action produces, or changes the form, behaviour or position of, in material or social space/time. The role of the Actor is to actualise the Process, which has an effect on the Goal. Effective action is realised:

- i) at clause rank by the extension of the process to a Goal,
- ii) at group rank by the animacy of the entity functioning as Actor,
- iii) at word rank by an effective verb (complex) instantiating the Process,
- iv) at morpheme rank by the ACTIVE inflection of the (pro)nominal group functioning as Actor.

These four recognition criteria are apparent in the following example [5:44].

[5:44]	<i>minyma-ngku</i>	<i>kuka mitika</i>	<i>pungku-la</i>	<i>kati-ngi</i>
	woman	bandicoot game	killing	were bringing
	Actor	Goal	Process	

The women were hunting bandicoots and bringing them back to camp.

In example [5:44] the action of 'killing and bringing' is extended to a Goal 'bandicoot game'; the Actor 'women' are **hyper-animate** entities, i.e. they are able to act in a process that affects a Goal; the verbs *pungku-* 'striking' and *kati-* 'bringing' are both effective (in this context); and the Actor is inflected as ACTIVE. Such a clause with all four criteria overtly realised is comparatively infrequent in discourse (contra Dixon 1980), since either the Actor may be implicitly presumed [5:5'] or the Goal may be [5:45].

[5:5']	<i>piti-ngka</i>	<i>-ni</i>	<i>ø</i>	<i>nguwampa</i>	<i>tjarpa-tju-nu</i>
	into a burrow	me	(it)	nearly	did drag in
	Place	Goal	Actor	Quality	Process
	Into the burrow I was nearly dragged by it.				

[5:45]	<i>wati kutjupa</i>	<i>tjuta-ngku</i>	<i>ø</i>	<i>tjulya-ningi</i>	<i>putu</i>
	many different men		(it)	were snatching	unable
	Actor		Goal	Process	
	All those men were unable to snatch the fire from him.				

Effectivity is a feature of the clause as a whole, not simply of the Actor inflected as ACTIVE (contra the formalist characterisation of Actor as ‘agent’). The semantic relationship between Actor and Process is no different to that in non-effective actions, i.e. the Actor ‘actualises’ the Process. This is clearly brought out in the inflection of pronouns, where Actor is realised in the same so-called ‘nominative’ form in both effective and non-effective actions. The ACTIVE inflection of Actor functions to distinguish it from the Goal, not to indicate external agency causing the process. Rather the action model in Western Desert is a purely transitive one of effect versus no effect, not cause versus no cause; either the Actor+Process figure results in an effect on a Goal or it does not. This transitive figure is illustrated in Figure 5.6.

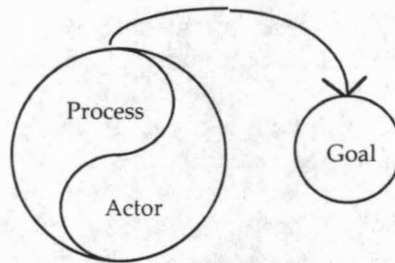


Figure 5.6: Transitive potential of effective action

The Western Desert model contrasts with English, in which transitive and ergative models complement each other (Halliday 1994a:161–176). Effective action in English may involve only a Goal, ‘the glass broke/was broken’ (no causation), or include additional agentive Actor, ‘by the cat’ (caused). In English effective actions, it is the Goal which is obligatory Medium “through which the process is actualised” (Halliday 1994a:161–176), not the Actor which may or may not ‘actualise’ it. This potential for external agency in English is recursive, ‘Actor x caused Actor y to cause Actor z to act’ (described in Martin 1988). Recursive agency in English is a clause rank feature, as illustrated in Figure 5.7.

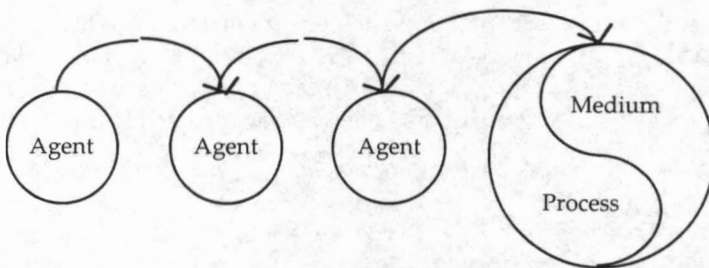


Figure 5.7: External agency in English: recursive potential

In contrast, because the Actor is the Medium in Western Desert, there may be only one Actor per clause. This does not mean that Actors may not be complex entities, such as *paluru ngali wali palya-nu*, ‘he and I made a house’, but such complex participants are a group rank feature. This means that clauses in which one person causes another to act are not a feature of the language. Such a contrast with English may be a significant cryptotype differentiating construals of social reality in egalitarian and stratified societies (see Rose 1993, for a fuller comparison of such features in Pitjantjatjara and English).

The clause rank nature of effectivity is also displayed overtly by the inflection of circumstances that elaborate the process with Quality [5:46].

[5:46]	<i>paluru</i>	<i>purkara-ngku</i>	<i>kulata</i>	<i>tjukaruru-ni</i>	<i>waru-ngka</i>
	he	slowly	spear	is straightening	in fire
	Actor	Quality	Goal	Process	Place
	He's slowly straightening a spear in the fire.				

The adverbial inflection repeats the ACTIVE nominal inflection, mirroring the effectivity status of the clause to distinguish a clause rank circumstance from a group rank nominal modifier (see §5.5.3 on elaborating circumstances).

In addition to the inflection of Actors and elaborating circumstances, effectivity is also realised lexically in the verb (complex) instantiating the Process, distinguishing effective from non-effective verbs. The largest variety of verbal lexis in Western Desert is concerned with material action. Many verbs may function as either effective or non-effective actions, e.g. *ngayulu yunpa kampanyi* 'my face is burning' / *tjintu-ngku-ni yunpa kampanyi* 'the sun is burning my face'. However the majority of verbs function as either effective or non-effective. In between are verbal lexemes that represent non-effective types of action, but which may be inflected to realise semantically related effective ones (e.g. *inka-nyi* 'playing', *inka-tjing-anyi* 'teasing', *wangkanyi* 'talking', *wangkatjinganyi* 'urging to talk' and so on). This segment of the verbal lexis system construes a large number of types of action as prototypically or originally non-effective, and secondly as derived effective actions (see §2.6.4.3 above on transcategorisation). However verbal lexis is only one element of effectivity, the other being its actualisation as Actor+Process nucleus with Goal. The Process specifies the type of effect while the Actor inflection iterates its effectivity. The Goal enhances the effective Actor+Process nucleus as result, specifying the entity produced, transformed or transported.

5.2.4.1 Natural effective actions

Natural effective actions are those in which environmental phenomena may function as Actor, such as wind [5:47], sun [5:48], rain [5:49] and so forth. Animals and people may also act in such processes, but not other natural or cultural objects, such as land features, plants, wood, water, fire, tools and so on, that may otherwise act in non-effective action.

[5:47]	<i>walpa-ngku</i>	<i>punu pala</i>	<i>katanta-nu</i>
	wind	that tree	did break
	Actor	Goal	Process
	The wind broke that tree.		

[5:48]	<i>tjintu-ngku</i>	<i>-ni yunpa</i>	<i>kampa-nyi</i>
	sun	me face	is burning
	Actor	Goal	Process
	The sun is burning my face.		

Raining in Western Desert is realised by the effective process *puyi-* 'chilling', with *mina* 'water' as Actor, and the Goal implicitly presumed, i.e. 'everything'.

- [5:49] *mina-ngku* *puyi-ni*
rain is chilling
Actor Process
It's raining.

5.2.4.2 Creative actions

Creative action is a very large region in the verbal lexicon that involves entities 'doing to' other entities. The classes of entity which may instantiate the role of Actor in creative action include people and animals but not environmental phenomena. Animals may move, change or create a Goal, with people having the widest selection of creative actions to choose from. I have classified creative actions on lexical grounds as transforming or transporting a Goal.

5.2.4.2a Transforming

The following examples illustrate the potential for human and animal Actors in creative actions, e.g. 'many ants' in example [5:50], a 'bowerbird' in [5:51], 'two women' in [5:52] and 'we' in [5:53].

- [5:50] *minga tjuta-ngku* *-ni* *patja-ni*
ants me are biting
Actor Goal Process
Ants are biting me.

- [5:51] *ikarka-ngku* *wiltja* *palya-lpai* *palu-mpa kuri-ku*
bowerbird hut do make for his spouse
Actor Goal Process Behalf
The bowerbird makes a hut for his mate.

- [5:52] *munu* *pula* *mai ili* *ura-ningi*
and-SM they 2 fig food were collecting
Actor Goal Process
...and those two were collecting wild figs.

- [5:53]
1 *ka* *waru uwankara panya* *nganana* *waru* *kanyi-ni*
and all that fire we fire are having
So all the fire, we now have fire.
2 *nyangatja* *βrunka-ra α tili-ni*
this rubbing are igniting
Goal Process
We ignite this by friction.

5.2.4.2b Transporting

Again both humans and animals may be involved in transporting creative action, e.g. the 'wanampi serpent' in example [5:5'] and the 'two men' in [5:54].

[5:5'] *piti-ngka* -ni \emptyset *nguwanpa* *tjarpa-tju-nu*
 into a burrow me (it) nearly did drag in
Place Goal Actor Quality Process
 Into the burrow I was nearly dragged by it.

[5:54] *munu pula kuka kanyila kati-ngu*
 and-SM they 2 wallaby game did bring back
Actor Goal Process
 ...and they brought back wallaby meat to the camp.

5.2.4.3 Dispositive action

Dispositive action is ranged effective action, in which: i) any material object may instantiate the exchange commodity, as Goal, ii) people (or social animals) instantiate the exchange roles of producer/giver as Actor and Recipient.⁹

[5:55] *ngayuku kami-ngku -ni mai u-ngu*
 my grandma me food did give
Actor Recipient Goal Process
 My grandma gave me food.

[5:56] *panya Lands Trust nyangatja nyuntu-nya u-nganyi 99 year lease*
 that is this Lands Trust to you are giving as a 99 year lease
Goal Recipient Process Role
 That is, they are giving this Lands Trust to you as a 99-year lease.

5.3 SIGNIFICATION

The resources of SIGNIFICATION in the Western Desert enable speakers to represent acts of meaning as verbal or mental processing. The general model of saying and sensing construed in SIGNIFICATION is one of unfolding process, as with action, but there are three major recognition criteria that distinguish signification from action:

- i) The Medium must be a being capable of signifying, i.e. at least an animal capable of perception or mental reaction as Sensor, with people the limiting case, since Anangu are the only conscious entities also capable of communicating in words as Sayers.
- ii) There must be a complement to the signifying process, i.e. the locution or phenomenon that is signified, whereas complementation is optional in action.

⁹ Goddard (in Institute for Aboriginal Development 1992:168) recognises the dispositive configuration as regularly occurring with the verb *unganyi*, "The thing given and the recipient both take accusative case", though which would be classified as 'O' in Dixon's system is not clear. Goddard goes on to add "with the recipient usually coming first, if both are mentioned", and contradicts this with his first example [5:184] (labelling is mine):

[5:184] *mai -ni u-wa*
 food me give-!
Goal Recipient Process

Goddard may be suggesting 'word order' to distinguish the two participant functions, but this is unnecessary since the two participants are semantically distinct without structural marking. The order of constituents in Western Desert clauses is textually significant, not experiential.

- iii) The locution or phenomenon may be represented as a semiotic thing realised by a nominal group, or as another figure or sequence, projected by the signifying clause, whereas actions may only have nominal complements.

The two types of signifying clause, verbal and mental, represent a move by a Sayer in a verbal exchange, or the internal conscious processing of a Senser. Both have the option of representing signification as direct or indirect speech, i.e. as 'quoted wording' or as 'reported meaning'. So the two modes of semiosis, inter-personal and intra-personal, are both construed as linguistic phenomena at two levels, as lexicogrammar and as semantics.¹⁰ Both may also represent the act of meaning as a thing, that is a concrete or abstract entity that is said or sensed. Structurally, mental process clauses are distinguished from verbal ones most generally by the verb instantiating the signifying Process, i.e. either a type of saying or of sensing, and by the option of including the exchange participant Receiver in verbal clauses.

Signifying processes take place in material space-time, i.e. their Senser or Sayer is a concrete entity who is sensing or speaking in circumstances of Place and Time. However, developing on the model of actions unfolding in material space-time, SIGNIFICATION goes a step further in abstraction to reconstrue events as unfolding in semiotic space-time. In other words, the experiential resource for representing material action, as a configuration of process, people, things and places is redeployed to represent semiotic action. We can illustrate this by way of introduction, with verbal processes.

[5:57]	<i>mama nguntu-ngku</i>	<i>tjukurpa</i>	<i>wangka-pai</i>	<i>tjitji tjuta-ngka</i>
	parents	stories	used to tell	to children
	Sayer	Verbiage	Process	Receiver
	Parents used to tell stories to their children.			

In example [5:57] the type of process is specified lexically as verbal *wangka-* 'saying'; the Sayer actualises this process which brings a second entity into being, the Verbiage *tjukurpa* 'stories'. This entity is not a concrete object created by the process, but a semiotic thing, the semiotic domain of saying, construed by the grammar as an inner (i.e. obligatory) second participant. Verbal processes may also have an optional outer participant, Receiver, also a conscious entity, but which is construed by its optionality and LOCATIVE inflection as more peripherally involved in the process than obligatory Sayer and Verbiage. At clause rank, the Receiver is a participant who is construed as circumstance-like, although in reported dialogue the person functioning as Receiver in one move may become the Sayer in the next.

From the perspective of overt structural form alone, example [5:57] resembles an effective action of the creating type, happening in a location, e.g.:

[Actor-*ngku*] [Goal- \emptyset] [Process: effective: creation] [Location-*ngka*].

However the product is not material, but a linguistic phenomenon, *tjukurpa* 'story'; and the LOCATIVE inflection on the Receiver of this semiotic commodity represents extension of the process in semiotic space, rather than its location in material space. The role of Receiver may be instantiated only by conscious entities, prototypically people, and the role of Sayer may only be instantiated by people. Both participant types are a feature of verbal processes (unlike circumstances of Place or Time which may occur with any process type).

In each of these sub-types of verbal process, the nominal group functioning as Verbiage stands for a text that is spoken by the Sayer. It is a second-order metaphor for the genre or

¹⁰ Cf. Rumsey 1990 on the 'ideology' of wording and meaning in the Kimberley language Bunaba.

field of a spoken text, reconstruing it as a type of thing which is brought into being by the process of speaking, and which may be extended through semiotic space-time to a second human participant. The act of speaking, a move in a verbal exchange between speaker and addressee, is represented by the configuration of Sayer, Receiver and verbal process. But the text type or subject matter of the exchange move is separated out from the process and re-construed as an abstract participant, the domain of saying. This type of orbital structure potential is illustrated in Figure 5.8.

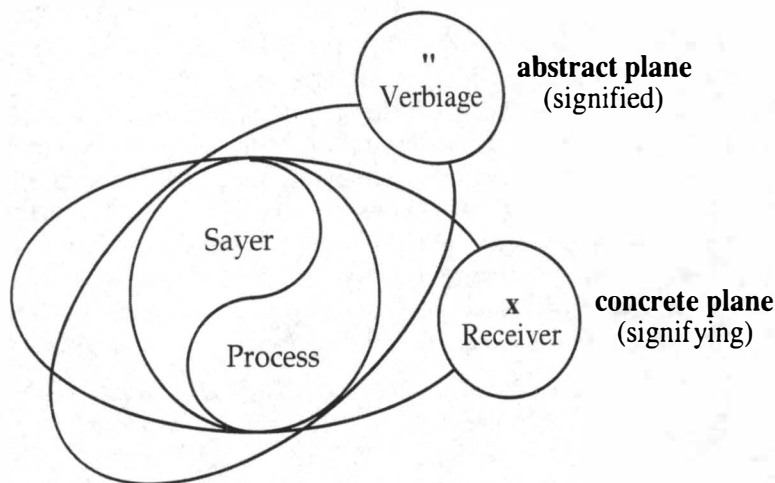


Figure 5.8: Orbital structure potential of signifying processes

However, as we have seen in Text [5:11], there is another way in which signifying processes may represent speech events. An exchange move may be represented more iconically as a projected clause, either reproducing the wording of the spoken text, as direct speech, a **metalocution** or representing its meaning as indirect speech, a **macrolocution** (see Halliday 1994a:250–257 for this potential in English). Instead of representing the signifying process as a simple clause with the subject matter construed as an entity, it is represented as a sequence of two figures, the first being the act of signifying, and the second the signified wording or meaning. This deploys the grammatical potential for complexing at clause rank, expanding one clause with a second clause at a higher level of abstraction, i.e. projecting, as in example [5:15’].

[5:15’]

1 *ka* \emptyset *watja-nu*
 and (one) did command
 Sayer **Process**

Then one sister told the other,

“2 \emptyset *wanyu* *wili* *mantji-la*
 “(you) ‘please’ long stick fetch-!”
 “Please fetch a long stick.”

We can diagram a projecting complex of process figures as in Figure 5.9.

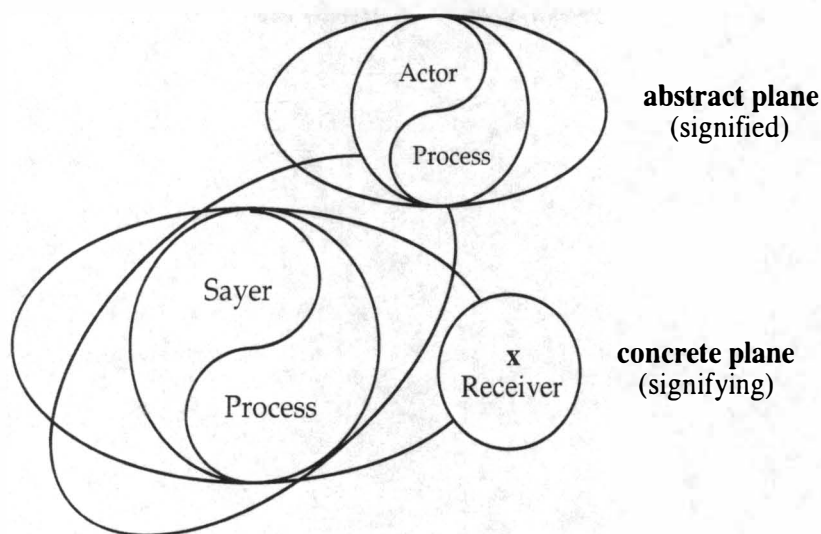


Figure 5.9: Orbital structure potential of projecting clauses

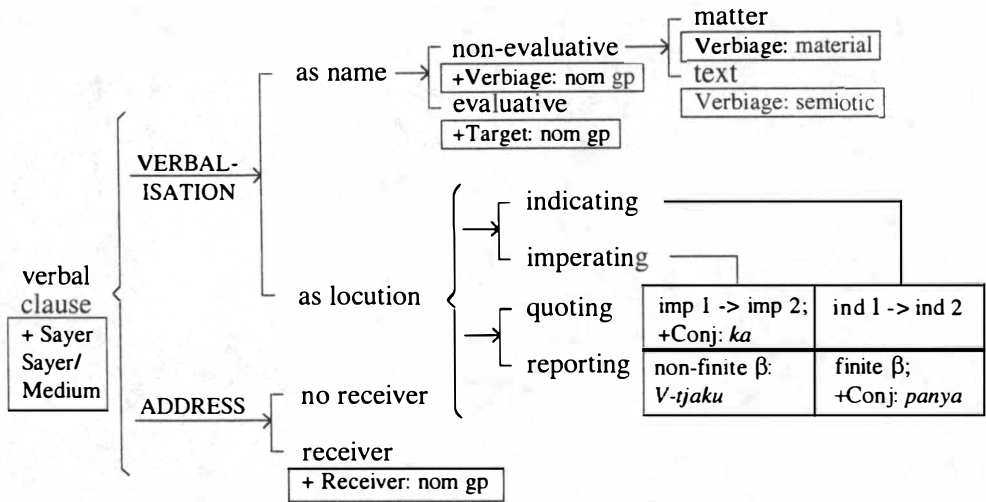
5.3.1 Verbal SIGNIFICATION

The recognition features of verbal clauses include:

- i) the type of entity that can function as Sayer, i.e. a person,
- ii) the necessity for complementation,
- iii) the potential for projection,
- iv) the potential for a Receiver.

Verbal SIGNIFICATION represents dialogic exchange as a process of ‘saying’, involving an obligatory Sayer and potential Receiver, and producing a locution in the form of either projected clauses or a nominal clause element. Only people may instantiate the role of Sayer, except in the case of mythic beings that are simultaneously human and animal. This contrasts with the model of verbal processing in written languages such as English where any entity capable of symbolising, such as clocks or books, may function as Sayer.

Projected locutions may be paratactic, i.e. “quoted speech”, or hypotactic, ‘reported speech’. Co-selecting with these two dependency types is the speech function of the projecting and projected clauses, either proposition or proposal. Projected propositions are typically represented as quoted speech, but they may also report speech, in which case person and temporal reference concords with that in the projecting clause, as in English, ‘he said that he was coming’. Projected proposals may also be quoted, but when reported are realised as irrealis non-finite processes. Nominal locutions are of two types, a Target of verbal evaluations such as ‘slandering’, or more frequently Verbiage, which may be representing subject matter as a concrete entity or a semiotic one such as a ‘story’. These options are set out in System 5.3.



System 5.3: Options in verbal clauses

In projecting verbal clauses, common and proper nominal Sayers are inflected as NEUTRAL, but when the locution is nominal the Sayer is ACTIVE to distinguish it from the Verbiage, which is also potentially human, and inflected as NEUTRAL. The Receiver of the locution is inflected as LOCATIVE.

5.3.1.1 Projected locutions: text example

Locutions may be projected paratactically, quoting “direct speech” or hypotactically, reporting ‘indirect speech’. Direct speech is the most frequent choice; it enables the speaker to reproduce the intonation, rhythm and ‘timbre’ of the quoted speech act, opening up a large potential for the speaker to express attitude towards both the Sayer and the locution. A common device is imitating or exaggerating the character of the Sayer, to amuse listeners who know the person, or to develop the character of a participant in a narrative. Since speakers are able to play around with the phonology of locutions to diversify varieties of saying, the range of ‘saying’ verbs is limited, distinguishing speech functions and genres rather than attitude (whereas written English in particular has a large ‘saying’ lexis).

Probably the most common environment for projected locutions is in narrative. The following extract, Text [5:58], exemplifies projected propositions and proposals in an exchange between two brothers, YB and EB. In the transcription here, tone contours of projected clauses are presented to illustrate how the exchange is construed by the narrator. (Note that projecting clauses are normally not on separate tone groups.)

Text [5:58] Two brothers

1.1 ka nyanga-ngku wangka-ngu
and this one said
Sayer Process
...and this one (the younger brother) said,

Projected speech function
(+ projected voice quality)

- 1"2 *kuta* // *ngari-ku* *-na* *nyanga-ngka* "question"
 EB will lie I here? (deferential alto)
 "Big brother, may I lie here?"
- +2.1 *ka* \emptyset *watja-nu*
 and-sw (EB) told
 Sayer Process
 And the older brother replied,
- 2"2 *wiya* *patu* *a-ra* "command"
 no far away go-! (peremptory tenor)
 "No, go and lie far away from me!"
- +3.1 *ka-l* \emptyset *watja-nu*
 and-sw-at that (YB) told
 Sayer Process
 And at that the younger brother replied,
- 3"2 *wiya* // *kuta* *ila* *-na* *ngarin-tjikitja* "echo question^statement"
 no? EB close I (wish) to lie (imploring)
 "No? Big brother I want to lie close to you."
- 4"1 *ma-ngari-ma* "command"
 "lie apart-!" (gruff)
 "Sleep away from me!"

Note how the switch Medium conjunction *ka* 'and-sw' is used to switch between Sayers in this exchange, i.e. 1 (YB) -> +2 (EB) -> +3 (YB). In the final move 4, the projecting clause is ellipsed and the Sayer's identity is realised by the gruff voice quality of the elder brother.

5.3.1.2 Projected propositions

Propositions are most often projected as quoted direct speech, as in the question 1"2 and statement 3"2 in Text [5:58]. Indirect speech is a much less frequent choice. It attends to the subject matter of the projection, rather than to the phonological aspects of its delivery. Temporal and person reference is consistent with that of the projecting clause, 'he said he would...', anchoring it to the immediate context of speaking as in example [5:59].

[5:59]

- α *ngayulu* *palu-la* *tjapi-nu*
 I to her did ask
Sayer Receiver Process
 I asked her

“β *panya paluru nyaa-ku a-nu*
 that she why? did go
 why she went.

The projection in example [5:59] is introduced with the anaphoric *panya*, here functioning as a conjunction which marks the clause complex relation as hypotactic projection. This is a general feature of reported propositions, equivalent in this function to ‘that’ in English reported speech.

5.3.1.3 Projected proposals

Projected proposals represent a spoken command, request or offer. Again there is choice between paratactic and hypotactic projection.

5.3.1.3a Paratactic proposals

Paratactic proposals are exemplified by the elder brother’s commands in Text [5:58] clauses 2”2 and 4”1 above, or the elder sister’s commands from Text [5:11], such as example [5:15] below.

[5:15’]

1 *ka ø watja-nu*
 and (one) did command
 Sayer Process
 Then one sister told the other,

“2 *wanyu wili mantji-la*
 ‘please’ long stick fetch-!
 “Please fetch a long stick.”

5.3.1.3b Hypotactic proposals

Hypotactic proposals are irrealis non-finite clauses, i.e. ‘tell to do’. The speech functions of command and offer are distinguished by the Medium reference inflection on the projected process. Switch Medium reference realises a command, i.e. the Receiver will act [5:60].

[5:60]

α *paluru tjana ngayu-la watja-nu*
 they3 to I did command
 Sayer Receiver Process
 They told me

“β *ma-pitja-ntjaku*
 to go away-sw
 to go away.

Same Medium reference realises an offer, i.e. the Sayer will act [5:61].

[5:61]

- α *paluru tjana panya* *pitjala tjapi-ningi*
they3 coming were asking
Sayer **Process**
They were coming and asking
- β *Lands Trust* *tjungku-ntjikitja-ngku*
Lands Trust to put-sm
to set up a Lands Trust.

5.3.1.3c Commanded proposals

Another type of hypotactic projected proposal commands the listener to command someone else to do something. Here both the projecting verbal clause, and projected action clause, are in imperative mood. In example [5:62] below such a locution is itself projected by a verbal process in declarative mood.

[5:62]

- 1 *nganana* *manager* *watjal-pai*
we3 manager do command
Sayer **Receiver** **Process**
We tell our managers,
- “2.1 *DAA-ngka* *wangka*
to DAA say-!
Receiver **Process**
“Say to the Department of Aboriginal Affairs,
- 2”2 *ka* *-ni* *money* *u-wa*
and me money give-!
“Give me money!”

The projected clause in example [5:62] is introduced by the additive conjunction *ka*. In this environment it fulfils the same conjunctive role as *panya* in example [5:59] above, overtly marking the clause complex relation as hypotactic projection. Note that like example [5:59] the person reference is to the context of speaking, in example [5:62] the Goal in the projected action refers to an interactant in the context of speaking *-ni* ‘me’.

5.3.1.4 Nominal locutions

There are two types of nominal groups that realise locutions, functioning as **Target** or **Verbiage**.

5.3.1.4a Target

A verbal process may be evaluative, of which a nominal locution is the Target as in example [5:63].

[5:63]	<i>paluru</i>	<i>-ni</i>	<i>rawa-ngku</i>	<i>kuranmana-nyi</i>	<i>anangu tjuta-ngka</i>
	she	me	continually	is slandering	to people
	Sayer	Target	Quality	Process	Receiver
	She is continually slandering me to people.				

5.3.1.4b Verbiage

More often the nominal verbalisation is simply Verbiage. The entity instantiating Verbiage may be a **semiotic thing** or a more **concrete thing**.

5.3.1.4b (1) Verbiage: semiotic thing

Semiotic Verbiage may be the name for a variety of discourse such as *alpiri* 'long range dialogue' or *Pitjanjatjara* 'the dialect having the word *pitja*', or *tjukurpa* 'a story' as in example [5:57].

[5:57]	<i>mama nguntju-ngku</i>	<i>tjukurpa</i>	<i>wangka-pai</i>	<i>tjitji tjuta-ngka</i>
	parents	stories	used to tell	to children
	Sayer	Verbiage	Process	Receiver
	Parents used to tell stories to their children.			

5.3.1.4b (2) Verbiage: concrete thing

If the Verbiage is a more **concrete thing**, it is the 'subject matter' of the reported discourse as in example [5:64]. In 1"2 the Verbiage is the *nya*-item *nyaa* 'what?', the identity of which is supplied in +2 as the Verbiage 'Lands Trust'.

[5:64]					
1.1	<i>ka</i>	<i>ø</i>	<i>watja-nu</i>		
	and	(he)	did say		
		Sayer	Process		
	And he said,				
1"2	<i>uwa</i>	<i>tjana-nya</i>	<i>nyura</i>	<i>nyaa</i>	<i>wangka-nyi</i>
	"yes	them ³	you	what?	are saying"
		Receiver	Sayer	Verbiage	Process
	"Yes, what are you saying to them?"				
+2	<i>ka</i>	<i>piruku</i>	<i>ngayulu</i>	<i>wangka-ngu</i>	<i>Lands Trust</i>
	and-sw	again	I	did say	Lands Trust
			Sayer	Process	Verbiage
	And again I said Lands Trust.				

5.3.1.5 Summary of verbal processes

The sum of options for verbal processes and their locutions construes language as a social exchange between speaker and addressee. An exchange consists of moves such as question and answer or command and response, that are given names in the form of verbs such as *tjapini*, *wangkanyi* and *watjani*, and then quoted as wording or reported as meaning. In other words this region of the Western Desert TRANSITIVITY system ideationalises the MOOD

system as a dialogic theory of unfolding intersubjectivity. This is taken a step further in abstraction by giving names to varieties of discourse, as i) types of text, e.g. *tjukurpa*, ii) types of register, e.g. *alpiri*, or iii) types of dialect, e.g. *Pitjantjatjara*. These semiotic entities may then function as participants in other processes.

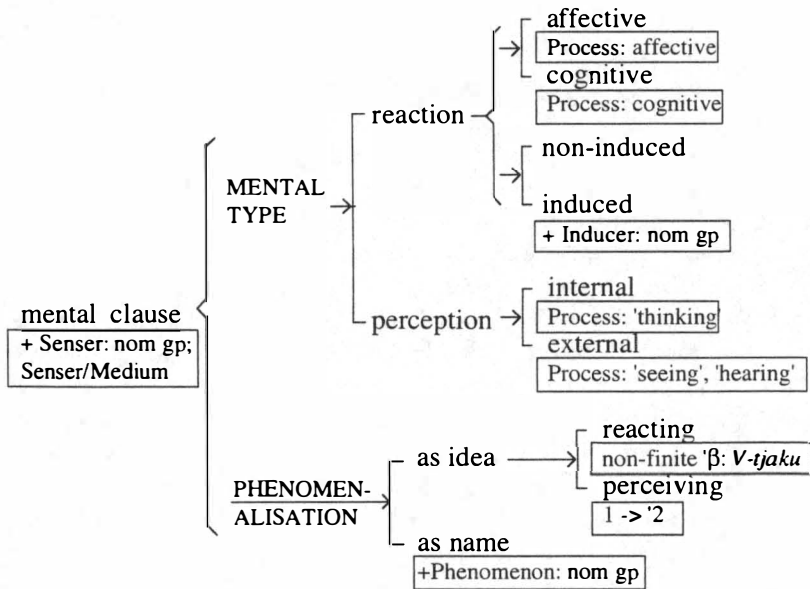
This set of meta-linguistic resources theorises the language as a stratified resource for enacting relations between speaker and addressee, and for representing subject matter. The parameters of the theory are stratification of language and of context on the one hand, and metafunctional diversification on the other. Verbal processes enable the discourse semantic organisation of an exchange to be represented as an activity sequence, in which interactants function as Sayer and Receiver. Their projections enable the lexicogrammar and intonation of each exchange move to be presented directly as a "quote", or for the meaning of the exchange move to be presented indirectly as a 'report'. Quoting construes interactants' mood, modal assessment and intonation choices as realising the tenor of their relations, while reporting focuses on their transitivity choices for realising subject matter, i.e. the field. Finally, names for discourse varieties represent variation in lexicogrammar *pitjan-tja-tjara*, in register *alpiri*, or in genre *tjukurpa*. (Certain register names also theorise grammatical classes by transcategorising them, e.g. *wangka-nyi* 'saying' *tjalpa-wangkan-tja* 'register for saying obliquely').

5.3.2 Mental SIGNIFICATION

If verbal process options construe such an elaborate social semiotic theory of language, what theory of consciousness do mental processes construe? The recognition features for mental clauses include:

- i) the type of entity that can function as Senser, i.e. a conscious being,
- ii) the necessity for complementation, and
- iii) the potential for projection.

Options for mental processing in the language include two general domains: **perception** of, or **reaction** to, phenomena that are external to the Senser or internal to her consciousness. These choices in MENTAL TYPE co-select with two general options in the construal of the phenomena perceived or reacted to by the Senser. As with verbal processes, PHENOMENALISATION may be represented as a clause participant, a **Phenomenon**, or as a projected clause, an **idea**. Reaction projects an idea as an irrealis non-finite clause, e.g. 'Senser desires -> to do', i.e. a 'macro-phenomenon'. Since it is non-finite, a macrophenomenon has a restricted range of experiential, interpersonal and textual options. Perception typically projects an idea as a finite clause, or 'metaphenomenon', e.g. 'Senser sees -> something is happening', with the same range of experiential, interpersonal and textual options as the projecting clause. However, perception may also project a macrophenomenon (see Halliday 1994a:115 on phenomenon, macro- and metaphenomenon). These general options for mental processing are set out in System 5.4.



System 5.4: Options for mental process

Perception and reaction differ in their construal of the nature of the process and its relation to the phenomenon. In perception, the phenomenon is construed as a semiotic product of the Senser+Process nucleus, whether the phenomenon is a thing or a projection. Reaction on the other hand is construed as a change in the Senser in reaction to the phenomenon.

5.3.2.1 Perception

The grammar of perception construes the Senser's apprehension of external phenomena (perceptual categories) as identical to the apprehension of phenomena internal to consciousness (conceptual categories). There is no grammatical distinction between cognition and perception as we find in English for example. The grammatical conflation of external and internal perception is also reflected lexically in the general mental verb *kuli-ni*, which may be interpreted in English as 'hear', 'heed', 'listen', 'consider', 'know', 'understand', 'remember' or 'feel', depending on the context. In other words the verb *kuli-ni* may function as a process of perception of external or internal phenomena, or simply of perceptive behaviour (see above §5.2.3.3 Verbal behaviour). Aural perception is construed as hearing either another's speech (or non-verbal sounds) or one's own thoughts, and this model of 'internal speech' extends also to visual perception.

5.3.2.2 Projected perception

Projected perception has similar options to projected verbal processes, it construes conscious processing typically as the wording and intonation of "direct speech" or much less frequently as a reported 'act', with the important difference from verbal processes that there can be no external Receiver of this 'internal speech'. I have used the labels **internal**

perception to refer to meanings such as ‘thinking’ ‘considering’ or ‘understanding’ and **external perception** to refer to meanings such as ‘hearing’ and ‘seeing’.

5.3.2.2a Internal perception

Internal perception is typically realised by *kulini*. It may be an individual process as in example [5:65] *ka ngayulu kuli-ni* ‘and I’m thinking’, or a collective one, such as in example [5:66] *ka-la kuli-ni* ‘and we’re thinking’, and in [5:67] *ka pula kuli-nu* ‘and they2 thought’. In the latter, thinking is construed as internal to the Sensors’ consciousness, but at the same time as social, since two or more people are thinking together. They may also have talked about the topic but what is represented here is the process ‘thinking to ourselves’, not as talking to each other. The projected speech function is indicated to the right of each projected idea.

5.3.2.2a (1) Thinking to oneself

In example [5:65] *kulini* may be glossed as ‘asking oneself’ (2’2).

[5:65]

1 *nyara palulanguru* *meeting pulka* *wangka-ngi*
 from that yon big meeting was talking
 With all that there was a big meeting,

+2.1 *ka* *ngayulu* *kuli-ni*
 and-sw I am thinking
 Senser **Process**
 and I was thinking,

2’2 *hai* *meeting nyangatja* *nyaaku* *pulka-ri-nganyi-lta* “*nya-question*”
 hey¹¹ this meeting why? is growing
 “Hey, how did this meeting get so big?”

Note in clause +2.1, that the process *kuli-ni* is in present tense, although its context is a recount of past events. This is a frequent feature of mental processes in narrative, comparable to the use of present tense for mental and verbal processes in spoken English narratives, e.g. ‘and then I’m thinking... and so she says...’.

5.3.2.2a (2) Thinking together

In the following examples, thinking is construed as a social process. In example [5:66] *kulini* means ‘judging’ (1.1) and then ‘exhorting’ (+2.1). Note the use of future tense *kulil-ku* to realise ‘suggestion’ more obliquely than optative mood *kulin-ma*, (see §4.3.6 on grammatical metaphors for proposals).

¹¹ The exclamative *hai* is from English ‘hey’, although Western Desert *ai* is still more common.

[5:66]

1.1 *ka* *-la* *pala palu-la* *kuli-ni*
 and we3 at that there are thinking
 Senser **Time** **Process**
 And at that we thought,

1'2 *nyanga palu-nya* *piranpa-ku idea pitjan-tja* "statement"
 this here (is) a whitefellow's idea [[that's come]]
 "This is a whitefellers' idea that's come."

+2.1 *ka* *-la* *kuli-ni*
 and we3 are thinking
 Senser **Process**
 So we thought,

2'2 *uti* *nganana* *kulil-ku* "suggestion"
 clearly we3 will think
 "Clearly we should decide."

In example [5:67] the meaning of *kulini* is both 'telling oneself' and then 'asking oneself'.

[5:67]

1 *ka* *pula* *kuli-nu*
 and they2 did think
 Senser **Process**
 So they thought,

'2 *palya-nti* *ka* *-li* *kuwari-mpa* *putu nyaku-la-mpa* *yaaltjiring-ku-li*
 OK-maybe and we2 now if unable to see what will we do?
 "OK, so if we can't find them, what shall we do?"

Internal perception can also mean 'considering' an act, i.e. a macro-phenomenon, where the projected clause is **non-finite** and **irrealis**. This structure functions to express a proposal subjectively (as discussed in §4.3.6). Such projections 'ideationalise' interpersonal meanings, i.e. they represent inclination or obligation as conscious processing, projecting an act yet to occur. In example [5:68] the inclination value is low, i.e. merely 'considering', but it can be intensified with a verb of 'desire' (see Reaction processes below).

[5:68]

α *ngayulu* *kuli-ni*
 I am thinking
 Senser **Process: mental**
 I was thinking

' β *ini kutjupa* *tjungku-ntjikitja*
 different name to put-SM
 to give it different name.

Western Desert processes of 'seeing', 'hearing' or 'feeling' phenomena that are external to the Senser's consciousness are construed in the same manner as processes of 'thinking (about)' phenomena internal to one's consciousness. McGregor (1990) notes a similar feature in the Kimberley language, Kuniyanti, and his examples show that both internal and external projected perception are represented as quoted speech.

It is difficult to gloss this meaning in English without reference to verbal processes such as 'saying to oneself', where the Sayer has the same identity as Receiver, or to spatial metaphors like 'say it in your head'. Nesbitt and Plum (1988) show statistically that cognition and perception in English tend to project reported meanings, whereas verbal processes tend to project quoted wordings. Western Desert, on the other hand, tends to construe perception, of both internal and external phenomena, as the production of wordings internal to the Senser, and saying as the exchange of wordings between Sayer and Receiver. Both types of semiosis are explicitly represented as linguistic processing. This cryptogrammatic theory of perception is consistent with Vygotsky's (1986) observations of the ontogenesis of thought as internalisation of speech, a process that is obscured in the English cryptogrammatic dualisation of cognition and perception.

5.3.2.3 *Perceived phenomenon*

Where the Phenomenon is realised as a nominal clause constituent, it represents an entity or name for a process that the Senser perceives, either in her external environment or internal thoughts. To distinguish their roles, the Senser takes the ACTIVE nominal inflection, while the Phenomenon is NEUTRAL, reflecting the pattern in effective material clauses. This morphological distinction is required since both Senser and Phenomenon may be instantiated by conscious entities (people or animals).

5.3.2.3a *Internal perception*

In the following examples, the verb *kulini* denotes internal conscious processing, 'thinking' and 'understanding'. Although these distinct semantic concepts are realised by a single item, the distinction is apparent from their context. For example, the Phenomenon of 'understanding' in example [5:72] is an abstract thing, a 'Lands Trust', while that of 'thinking about' in [5:71] is a concrete thing 'one man'. The Phenomenon of thinking in example [5:73] is a reference item *palu-nya* 'that'.

5.3.2.3a (1) *Thinking*

[5:71]	<i>ka</i>	<i>ngura kutjupa tjuta-ngka</i>	<i>wati kutjupa tjuta-ngku</i>	<i>kuli-ni</i>
	and	in many different places	many different men	think
		Place	Senser	Process

wati kutju

one man

Phenomenon

So in numerous places, a great many men were thinking of this one man,

5.3.2.3a (2) Understanding

[5:72] *ka anangu tjuta-ngku panya Lands Trust putu kuli-ningi*
 and people that Lands Trust were unable to understand
Senser Phenomenon Process

...but many people couldn't understand that Lands Trust.

[5:73] *ka -la palu-nya panya kuli-ni*
 and we that that is are thinking
Senser Phenomenon Process

So we thought about it.

5.3.2.3b External perception

External perception may include 'hearing', 'seeing' or 'feeling'.

5.3.2.3.b (1) Hearing

The same item used for internal perception *kulini* is also used to denote external perception as 'hearing'. In example [5:74] the speaker has heard a 'bird chattering', and tells his older brother that the Phenomenon he has heard is a 'demon', elaborated 'an *uriltjakanu* bird', i.e. there is a second Phenomenon here that elaborates the first.

[5:74]

1 *tjulpu wangka-wangka-ngi*
 bird was chattering
 A bird was chattering.

2 *kuta mamu -na kuli-nu tjulpu uriltjakanu*
 EB demon I did hear *uriltjakanu* bird
Phenomenon Senser Process Phenomenon (elaborated)
 Brother, I heard a demon, an *uriltjakanu* bird.

5.3.2.3.b (2) Seeing

In example [5:75] on the other hand the type of perception is 'seeing', and the identity of the Phenomenon is the general thing *nyaa*? 'what?'. Note that this Phenomenon is twice elaborated as late New.

[5:75] *nyaa -n nya-ngu nyaa nyaa*
 what? you did see what? what?
Phenomenon Senser Process Phen. Phen. (elaborated)
 What did you hear? What? What?

5.3.2.4 Reaction

Mental reaction differs from mental perception in its construal of the nature of the process and its relation to its Phenomenon. We have seen how perceiving is construed as extended from the Senser+Process nucleus to the Phenomenon, in which they are somewhat

similar to transitive material processes. Reaction on the other hand is construed as a change in the Senser in response to an outside stimulus.

Reaction processes are realised by verbs of affective or cognitive states that are inflected for inceptive aspect, suggesting an internal process of 'becoming'. A reaction Phenomenon is realised by a nominal group with the GENITIVE inflection, and a macrophenomenon by an irrealis non-finite process. The inflections of these nominal and verbal phenomena both suggest an external stimulus which the internal reaction is directed towards, in time or space, e.g. 'desiring **for** a thing' or 'desiring **to** do'.

5.3.2.5 *Affective reaction*

A larger set of verbs function in reaction processes than in perception. The majority of these represent affective internal states, and tend to have positive or negative values, illustrated in Table 5.3 (see Eckert & Hudson 1988:68), followed by examples of non-projecting and projecting reaction.

Table 5.3: Reaction processes

positive		negative	
<i>mukuringanyi</i>	liking, wanting, desiring	<i>kuraringanyi</i>	disliking, hating
<i>uny Turinganyi</i>	desiring, loving	<i>watjilarinyi</i>	longing, feeling homesick
<i>raparinganyi</i>	feeling brave, confident	<i>nguluringanyi</i>	fearing
		<i>kuntaringanyi</i>	feeling shy, ashamed
<i>ngalturinganyi</i>	feeling sympathy	<i>nyararinganyi</i>	feeling jealous
<i>pukularinyi</i>	feeling happy	<i>mirparinganyi</i>	feeling offended
		<i>waruringanyi</i>	getting heated
		<i>pikaringanyi</i>	getting angry

5.3.2.5a *Phenomenal*

Here the Phenomenon is inflected as genitive, with *-ku*.

- [5:76] *nyuntu* *nyaa-ku* *ngayu-ku* *pika-ri-nganyi*
 you why? to me are being angry
Senser Reason Phenomenon Process
 Why are you angry at me?

- [5:77] *tjitji nyangatja* *nyantju-ku* *ngulu-ri-nganyi*
 this child of horse is frightened
Senser Phenomenon Process
 This child is frightened of horses.

5.3.2.5b *Macrophenomenal*

Here the macrophenomenon is realised by an irrealis non-finite process.

[5:78]

α	<i>paluru</i>	<i>kunta-ri-nganyi</i>	
	he	is embarrassed	
	Senser	Process	
	He is embarrassed		
β	<i>anangu tjuta-ngka</i>	<i>wangkan-tjikitja</i>	
	to many people	to talk-SM	
	macrophenomenon		
	talking in front of many people.		

5.3.2.5c Desideration

Projected reactions of desideration realise proposals subjectively (discussed in §4.3.6.1 above). They express either positive desire *mukuringa-nyi* or negative *mukuri-ngku-ntja-wiya*. In this type, the macrophenomenon is often an enclosed non-finite clause within the projecting clause.

[5:79]	β	<i>ngayulu</i>	<i>homeland</i>	<i>tjungku-ntjikitja</i>	α	<i>muku-ringa-nyi</i>
		I	homeland	to set up-SM		am wanting
		Senser	macrophenomenon			Process
		I want to set up my homeland.				

5.3.2.6 Cognitive reaction

In addition to these affective states, there are a few verbs that represent cognitive rather than affective states, e.g. *nintiringanyi* ‘learning’ (‘becoming aware’), *ngurparinganyi* ‘forgetting’ (‘becoming ignorant’), *mula-mularinganyi* ‘believing’ (‘becoming truthful’), *rukuringanyi* ‘being reminded’. However, although these lexical items are not affective, the structures they function in are identical to the affective reactions described above, so the grammar construes them as the same type of mental process. Examples are given below:

5.3.2.6a Phenomenal

Here again the Phenomenon is inflected as genitive, with *-ku*.

[5:80]	<i>English-ku</i>	<i>-ya</i>	<i>kuwari</i>	<i>ninti-ri-nganyi</i>	<i>school-angka</i>
	for English	they	now	are learning	in school
	Phenomenon	Senser	Time	Process	Place
	It's English they're now learning in school.				

[5:81]	<i>tjikirita-ku</i>	<i>na</i>	<i>ngurpa-ri-ngu</i>
	for cigarettes	I	have forgotten
	Phenomenon	Senser	Process
	I've given up cigarettes.		

5.3.2.6b Macrophenomenal

Again the macrophenomenon is realised by an irrealis non-finite process.

[5:82]

α	<i>ngayulu</i>	<i>youngfeller</i>	<i>ninti-ri-ngu</i>
	I	as a young man	did learn
	Senser	Role	Process
	As a young man I learned		
β	<i>motorcar</i>	<i>palya-ntjikitja</i>	
	motorcars	to fix-SM	
	macrophenomenon		
	to fix cars.		

5.3.2.7 Induced reaction

Many verbs that realise mental reaction also have corresponding causative forms, e.g. *ngulu-tjinga-nyi* 'frightening', *mukumuku-ni* 'causing to desire', *ninti-ni* 'teaching'. These verbs function in clauses which involve an additional agentive participant, the **Inducer**, as well as a Senser and Phenomenon; and again the phenomenon may be a thing or a projection.

5.3.2.7a Phenomenal

[5:83]	<i>mama-nguntju-ngku</i>	<i>iriti</i>	<i>tjitji tjuta</i>	<i>mamu-ku</i>	<i>ngulu-tjingku-pai</i>
	parents	long ago	children	for demons	did frighten
	Inducer	Time	Senser	Phenomenon	Process
	Parents used to make their children frightened of demons.				

5.3.2.7b Macrophenomenal

[5:84]

α	<i>tjamu-ngku</i>	<i>-ni</i>	<i>ninti-nu</i>
	grandfather	me	did teach
	Inducer	Senser	Process
	My grandfather taught me		
β	<i>inma nyangatja</i>	<i>inka-ntjaku</i>	
	this song	to sing-sw	
	macrophenomenon		
	to sing this song.		

The option of induced reactions may illustrate the reason that Senser and Phenomenon are inflected differently in reaction clauses from perception clauses. In induced reactions, the active inflection is reserved for the Inducer, distinguishing it from the Senser, which is inflected as neutral, so avoiding ambiguity.

5.3.3 Summary of mental process

Mental processes in Western Desert construe a dual model of consciousness. On the one hand they are processes of perception that construe consciousness as an internal verbal exchange, as thinking or perceiving in words. On the other hand they are processes of

reaction that construe consciousness as an inceptive change in the Senser in response to a stimulus. This reactive change may be either affective or cognitive, and is valued as either positive or negative. It may also be induced by another agent. There are some similarities here to the model of consciousness embodied in English mental processes, that contrast cognition and perception on one hand, with affection on the other. However there are also major differences, in:

- i) the construal of inner and outer perception as a single general type of process,
- ii) the dominant construal of perception as a verbal conscious processing,
- iii) the inclusion of both cognitive and affective processes as types of mental reaction.

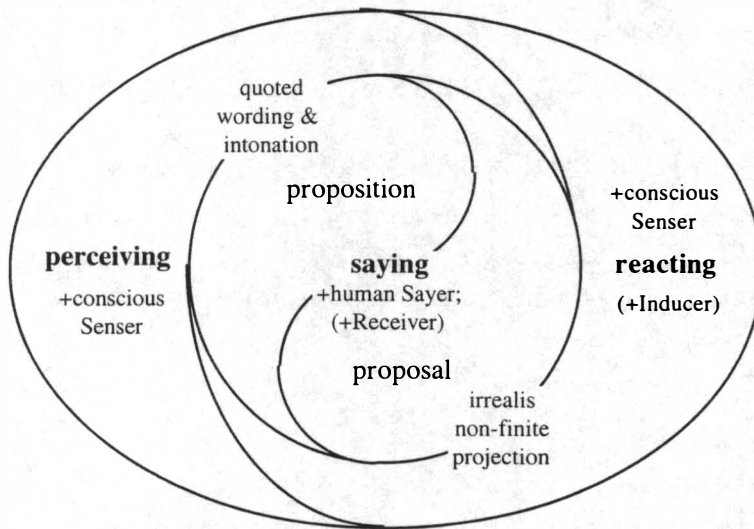


Figure 5.10: Topology of signifying process

By comparison, the English model backgrounds the linguistic nature of thinking, as a marked option in cognition and not an option in perception. Both thinking and perceiving are construed as production of meaning, but of individuated propositions rather than social exchanges; and both are contrasted with feeling which projects proposals. This is the cryptogrammatical model on which European folk theory of consciousness contrasts head from heart, and thinking from speaking.¹² The Western Desert model on the other hand, does not disguise the linguistic nature of mental processing as inner speech, and construes learning and forgetting in the same terms as feeling, as a change in one's internal state.¹³

¹² Perhaps partly for this reason, it has taken many decades for a social semiotic theory of mind such as Vygotsky's to make inroads into the individuating tendencies that its cryptogrammatical model of consciousness has imposed on European psychology, and consequently educational theories, for most of this century (see Halliday & Matthiessen in press).

¹³ This construal of mental processing is perhaps consistent with the model of consciousness developed in Edelman (1992). Perceptual categorisation is a feature of the 'primary consciousness' of species without language, and 'higher consciousness' has evolved in humans as a semanticisation of perceptual categorisation, i.e. the mind's perception of categories internal to itself. Western Desert makes it explicit that higher consciousness takes the form of language, whether or not it is spoken aloud. It is also interesting that 'learning' is included as a type of reaction in Western Desert, since Edelman models learning as an outcome of the 'adaptive value' assigned to cerebral categorisations by the limbic system, the site coordinating emotional reactions in the brain.

There are a number of parallels between mental and verbal processes that are brought out in the above diagram, Figure 5.10. Both quote the wording and intonation of proposition or proposals, and both report proposals as an irrealis non-finite clause. Both also have the option of expressing the signified complement as a thing. The most significant grammatical differences are the requirement in verbal processes for a human Sayer, and the potential for a Receiver, and the potential in mental reaction for an Inducer. Saying can be extended to another interactant, while feeling and learning can be induced by another agent.

5.4 RELATION

5.4.1 Overview of relational clauses

Relational clauses in Pitjantjatjara enable an entity to be related to another element in two general ways:

- i) attributing to it a general class, quality, possession or circumstance;
- ii) identifying it with a unique characteristic such as name, role or owner.

This semantic contrast between generality and definiteness is exemplified in the choice of *nya*-questions between *nyaa* 'what?' [5:85] and *ngananya* 'who/which one' [5:86].

[5:85] Attributive

A *nyangatja nyaa*
 this (is) what?
Carrier Attribute
 What is this?

B *wiya nyanga kura kura*
 no this (is) no good
Carrier Attribute
 No, this is no good.

[5:86] Identifying

A *wati palatja ngananya*
 that man (is) who?
Value Token: nya-question
 Who is that man?

B *paluru ngayuku katja, Mitaiki-nya*
 he (is) my son, Mitaiki
Value Token: kin relation+name
 He is my son Mitaiki.

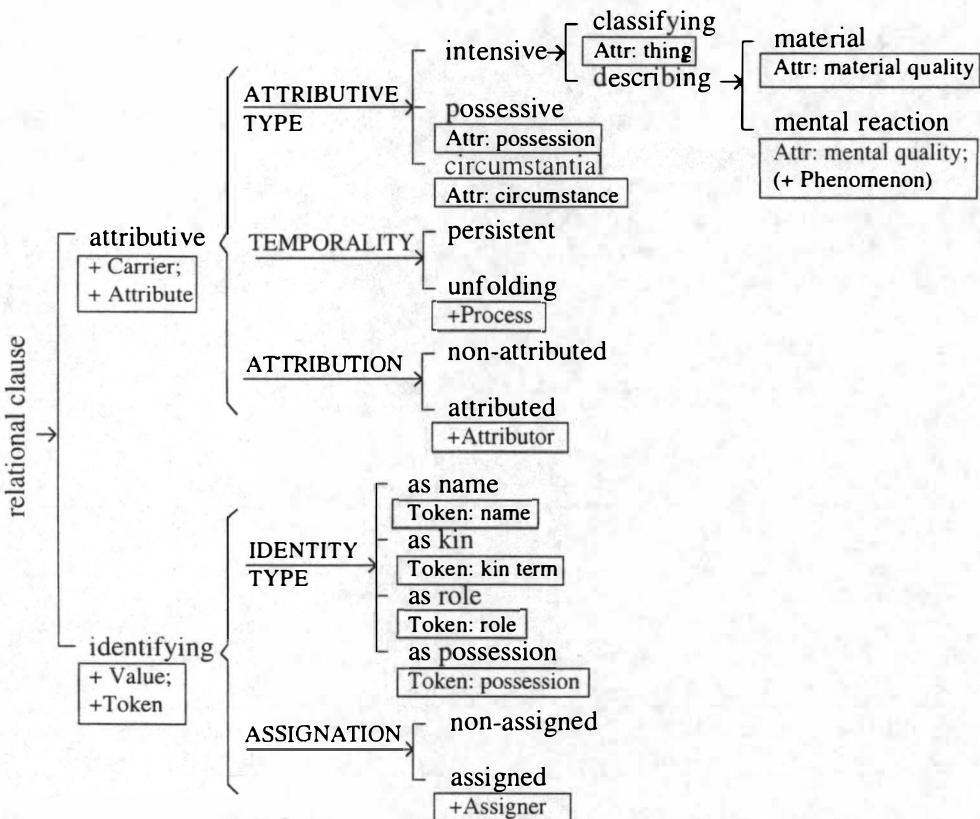
Carrier is typically a unique instance of the more general class or circumstance attributed to it, as in example [5:85] A and B *nyangatja* 'this thing', but it may itself be a general class, e.g. 'many people were in this land'. In contrast both Value and Token are unique, defined by demonstrative or personal deixis, or as a proper name or unique role such as *mayitja* 'the boss'. In terms of the generalised nuclear model of transitivity functions, the Medium of an attributive clause is the Carrier, and the Range is its Attribute; while the Medium of identifying clauses is the Value, and the Range its Token. This transitive construal of

relations is made overt in pronominal realisations of Carrier or Value, instantiated by the unmarked ACTIVE form of personal pronouns, as in example [5:86] B.

Both identifying and attributive types give a further choice in relation type. **ATTRIBUTION TYPE** includes intensive (either classifying or describing), possessive, and circumstantial options. **IDENTIFICATION TYPE** includes intensive and possessive types, but circumstantial is not an option.

Attributive relations have a further option in temporality. Since mood, tense, phase and aspect are realised by inflection of verbs in Western Desert, relational clauses without verbs are inherently indicative and 'timeless', i.e. the relation is construed as persistent rather than unfolding. Where a relation requires temporalising, i.e. to be grounded temporally or modally, it can be realised as a verb, either as an additional clause constituent, or as verbal affixes on the nominal group functioning as Attribute or Token. The latter realises an inceptive relation, intensive attribution, 'becoming thing/quality' or possessive identification 'becoming mine'. The former realises possessive attribution 'having thing', or circumstantial attribution 'being at place'.

Both attributive and identifying relations also have an option in **CAUSATION**. Caused relations are engendered by an additional agent, who assigns an Attribute or an Identity. These general options for relational clauses are displayed in System 5.5.



System 5.5: General options for relational clauses

5.4.2 Attributive relations

Attributive clauses relate a Carrier to an Attribute, which is a class of things or qualities (i.e. intensive), a possession or a circumstance. In other words an attributive relation may:

- i) describe a Carrier in terms of some quality,
- ii) classify it as some type of entity,
- iii) assign to it a possession or a part, with the possessive suffix *-tjara* (this does not include body parts which may only be elaborated by their wholes at group rank, similarly to personal pronouns and proper names),
- iv) assign a circumstance to it, such as Place, Accompaniment or Comparison.

A Carrier may be a unique individual, and therefore definite, the Attribute is indefinite since it represents a class of things, qualities or possessions (except for places with proper names). In each attributive type, the relation may be construed as persistent without a verb, or as unfolding by verbalising:

- i) an intensive Attribute with the inceptive inflection *-ri-*, e.g. *kura-ri-ngu* 'did become bad';
- ii) a possessive relation with the verb *kanyi-* 'holding';
- iii) a circumstantial relation with verbs of stance *ngari-* 'lie', *nyina-* 'sit', *ngara-* 'stand', *pupa-* 'crouch'.

These verbal realisations enable the relation to be modified temporally with tense choices, or modally with imperative mood. Finally, intensive attribution may be caused by an additional agentive Attributor, with the Attribute verbalised as an effective process. Carrier, Attribute (and Process) may be in any structural sequence, in contrast to English, in which the Carrier must normally be Subject (Halliday 1994a:120). These general options are exemplified in Table 5.4

Table 5.4: Examples of options for attributive clauses

	persistent	unfolding
intensive quality	<i>nyanga kura kura</i> this (is) useless	<i>palatja kura-ringanyi</i> that is <u>going</u> bad
thing	<i>paluru wati</i> he (is) a man	<i>paluru wati-ringu</i> he has become a man
caused		<i>tjilpi-ngku palu-nya wati-nu</i> elders made him a man
possessive	<i>nyangatja tili maru-tjara</i> this (has) black brands	<i>tjana waru kurakura kanyi-ningi</i> they were <u>having</u> useless fire
circumstantial	<i>paluru ngura nyara-ngka</i> she (is) in yonder place	<i>anangu tjuta nyina-ngi manta nyanga-ngka</i> many people were (sitting) in this land

Many options for relational clauses are displayed in the following Text [3:5], an extract from the mythic narrative recounting the people's original acquisition of fire. The orientation stage of Text [3:5] is concerned with establishing the location of the activity sequence, the possessions of the core participants and qualities. Attributive relations are employed to do so in clauses 2–9 and 13. In the transcription here, types of circumstantial Attributes are

specified as place, accompaniment and quality. (These and other circumstances are discussed further in §5.4.2.2.) Where the Carrier is implicit it is glossed and labelled in brackets (Cr).

Text [3:5] Kipara

					Attributive type
1	ø	<i>tjukurpa</i>	<i>kunyu</i>		[intensive]
	(this)	a Dreaming story	it's said		
	(Cr)	Attribute			
	This is a Dreaming story, I have been told.				
=2	<i>anangu tjuta</i>	<i>nyina-ngi</i>	<i>manta nyanga-ngka</i>		[circumstantial]
	many people	were sitting	in this land		
	Carrier	Process	Attribute: place		
	People were living in this land.				
3	<i>manta wingki-ngka</i>	<i>kunyu</i>	<i>nyina-ngi</i>	<i>anangu tjuta</i>	[circumstantial]
	in all lands	it's said	were sitting	many people	
	Attribute: place	Process	Carrier		
	In all the lands, it's said, the people were living.				
+4	<i>munu</i>	<i>ya paluru tjana</i>	<i>waru kurakura</i>	<i>kanyi-ningi</i>	[possessive]
	and	they3 they3	useless fire	were having	
		Carrier	Attribute	Process	
	<i>tili maru-tjara</i>				
	with black brands				
	Possession				
	But at that time those people had useless fire, with black firebrands.				
5	<i>tili maru-tjara</i>	ø	<i>kunyu</i>	<i>nyina-ngi</i>	[circumstantial]
	with black brands	(they)	it's said	were sitting	
	Attribute: possession	(Cr)	Process		
	With black firebrands, it's said they were living.				
6	<i>nya-wa</i>	<i>tjana putu</i>	<i>kunyu</i>	<i>waru mantji-ningi</i>	(action)
	look-!	they3 unable	it's said fire	were getting	
	Look, it's said they were unable to make fire.				
7	<i>munga-purunypa</i>	<i>maru-ngka</i>	<i>munga maru-ngka</i>		[circumstantial]
	like night	in darkness	in dark night		
	Attribute: comparison	Place	Place		
	It was like perpetual night, like living in darkness, in the dark night,				
+8	<i>munu</i>	<i>tjana-ya</i>	<i>watarku</i>	<i>nyina-ngi</i>	[circumstantial]
	and	they3-they3	in ignorance	were sitting	
		Carrier	Attribute: quality	Process	
	but furthermore those people were living in ignorance.				

- +9 *ka kunyu wati kutju-ngku Kipara-ngku tili wiru-tjara-ngka* [circum.]
and it's said only one man only Kipara with good brands
Carrier Attribute: accomp
- nyina-ngi*
was sitting
Process
And apparently there was only one man, only Kipara, who was living with fire
with good firebrands.
- +10α *ka ngura kutjupa tjuta-ngka wati kutjupa tjuta-ngku kuli-ni* (signif.)
and in various places various men are thinking
wati kutju
one man
So in numerous places, a great many men were thinking of this one man,
- 10β *mantji-ntjikitja waru palu-nya* (action)
to get that fire
of getting that fire from him.
- +11 *ka ya palu-nya putu mantji-ra* (action)
and they3 it unable getting
tjulya-ra wana-ra tjulya-ra wana-ra
snatching following snatching following
But they were unable to get it, as they snatched at it, and followed him
continuously.
- =12 *wati kutjupa tjuta-ngku tjulya-ningi putu* (action)
many different men were snatching unable
All those men were unable to snatch the fire from him.
- +13 *ka ∅ tjilka-ri-ngu* [intensive: inceptive]
and (this) became the *tjilka*
(Cr) Attribute
And this journey was transformed into the *tjilka*.
- 14 *tjilka-rara alatjitu kati-ngu* (action)
tjilka group exactly did bring
It was the *tjilka* host itself that was carried along in this journey.

The orientation stage of this Text [3:5] is concerned with establishing the location of the activity sequence, the possessions of the core participants and qualities. Attributive relations are employed in ten out of fourteen clauses to do so. The action does not really start until clause 11, and soon results in the inception of an Attribute: thing, i.e. the social institution *tjilka*. Because the Carrier of this Attribute is implicitly presumed, an anaphoric abstract relation is established between the activity sequence as Carrier and the inception of the *tjilka* as Attribute. Likewise, implicit presumption of the Carrier in clause 1 enables the abstract Attribute *tjukurpa* to refer cataphorically to the following text. Attributive relations are thus a major resource in the language, not only for ascribing qualities, classes, possessions and circumstances to concrete entities as Carrier, but also for representing abstract relations between abstract entities, such as *tjukurpa* 'story'. By means of such implicit reference,

abstract entities such as activity sequences are identified in the language without needing to lexicalise them, and causal relations can be inferred between events of the Dreaming, such as 'the origin of fire' and their contemporary consequences, such as the *tjilkatja* initiation ceremonies (Rose 1993). By such means abstract concepts can be construed at the discourse semantic level, without requiring the lexicogrammatical resources for abstraction characteristic of written modes in other cultures (as in this work for example).

The relational clauses in Text [3:5] also well illustrate the temporalising function of expressing relations with a verb. Two relations are persistent: clause 1 refers to the present '(this is) *tjukurpa*', while in 7 persistent past time is implicit *munga purunypa* '(it was) like night'. Others are temporalised in order to locate the relation in the past time of the story. The circumstantial relations (clauses 2, 3, 4, 5, 8) are construed as unfolding, but they are still relatively persistent with past durative tense: *nyina-ngi* 'was being', *kanyi-ningi* 'was having'. By contrast the inceptive relation in 13 came into being just once, with the punctiliar past tense *tjilka-ri-ngu* 'did become *tjilka*'.

The options for attributive relations will now be discussed in order of attributive type: intensive, possessive and circumstantial. Each of these types will be exemplified with persistent and unfolding temporality, and finally I will illustrate caused attribution.

5.4.2.1 Intensive attribution

As we have outlined, there are two sub-types of intensive attribution, i) classifying, in which the Attribute is a thing realised by a nominal group, i.e. a class of entity to which the Carrier is ascribed membership; ii) describing, in which the Attribute is a quality realised by an adjectival group, i.e. a descriptive characteristic. Halliday (1994a:120) points out that describing an entity also means classifying it, e.g. in "Sarah is wise, the meaning is similarly 'a member of the class of wise ones'", but I will exemplify the more delicate distinction between quality and thing as intensive Attribute.

5.4.2.1a Persistent

Persistent intensive attribution is realised by unmarked inflection on both Carrier and Attribute. It implies no temporal start or end for the Carrier's class membership or quality. This doesn't mean the relation is necessarily permanent, but that its inception is not known or not germane to the current context. Describing attribution was exemplified above in the exchange pair [5:85]. Classifying attribution is exemplified in example [5:87].

- [5:87] *nyangatja* *piti tjaa*
 this burrow mouth
Carrier **Attribute**
 This is the mouth of a burrow.

The Carrier is often implicitly presumed, as we see in Text [3:5]. In clause 1 this implicit Carrier is 'the following text', while in 13 it is 'the preceding activity sequence'. In example [5:88] the implicit Carrier is the generalised 'it'.

- [5:88] \emptyset *munga purunpa* *maru-ngka* *munga maru-ngka*
 'it' (was) like night in the dark in the dark night
Carrier **Attribute:compar** **Attribute:place** **Attribute:place**
 It was like perpetual night, like living in darkness, in the dark night,

[5:89]

B *ngananya*
who?
Carrier
Who does?

5.4.2.1b Unfolding

Unfolding intensive attribution is realised by the inceptive verbal inflection on the Attribute (a 'nomino-verbal' constituent). The class membership or quality is construed as 'coming to be'. Inceptive quality is exemplified in [5:90] and inceptive thing in [5:91] and [5:92].

5.4.2.1b (1) *Inceptive quality*

[5:90] *kuka nyangatja una-ri-nganyi*
 this meat is becoming bad
Carrier Attribute:inceptive quality
 This meat is going bad.

5.4.2.1b (2) *Inceptive thing*

[5:91] *kutjara panya kunyu wanampi-ri-ra-mpa nya-ngu-lta*
 those two it's said becoming wanampi serpents at that did see
Carrier Attribute:inceptive thing
 It's said those two, as they transformed into *wanampi* serpents could see...

- [5:92] *ka* \emptyset *tjilka-ri-ngu*
 and (this) did become *tjilka*
Carrier **Attribute:inceptive:thing**
 And this journey was transformed into the *tjilka*.

5.4.2.1c *Attribute: mental state*

An intensive Attribute may also be a mental state, such as *pukulpa* 'happy', *ninti* 'knowledgeable/aware', *ngurpa* 'ignorant'. These mental attributions are topologically related to mental reaction, and may include a Phenomenon (inflected as genitive) or macrophenomenon (irrealis clause). As the complement is optional I have classified these types as relations rather than signifying processes, in which a signified complement is obligatory.

5.4.2.1c (1) *No Phenomenon*

- [5:93] *paluru* *pukulpa*
 s/he happy
Carrier **Attribute**
 She's happy.

5.4.2.1c (2) *+Phenomenon*

- [5:94] affective Attribute
paluru *nyuntu-mpa* *pukulpa*
 s/he for you happy
Carrier **Phenomenon** **Attribute**
 She's pleased for you.
- [5:95] cognitive Attribute
Lee-ku *ngayulu* *ninti*
 of Lee I knowledgeable
Phenomenon **Carrier** **Attribute**
 I know Lee.

5.4.2.1c (3) *+macrophenomenon*

- [5:96] cognitive Attribute
ngayulu *wali palyan-tjaku* *ninti*
 I [[to build houses]] (am) knowledgeable
Carrier **macrophenomenon** **Attribute**
 I know how to build houses.

5.4.2.2 *Possessive attribution*

In possessive attribution the Attribute is a possession of the Carrier. This relation may be persistent, realised by the possessive inflection of the Attribute, or unfolding, realised by a verb of 'having'.

5.4.2.2a *Persistent*

Persistent possessive attribution is realised by a possessive inflection on the Attribute *-tjara*.

[5:97]	<i>Ngumula-nya</i>	<i>nyantju tjuta-tjara</i>
	Ngumula	with horses
	Carrier	Attribute:possession
	Ngumula has many horses.	

5.4.2.2b *Unfolding*

Unfolding possessive attribution is realised by a separate verbal constituent *kanyi*-‘holding’. The possessive relation is analysed in two elements, the thing possessed which is uninflected, e.g. *waru kurakura* in example [5:98], and the process of possessing *kanyini*.

[5:98]	<i>munu-ya paluru tjana</i>	<i>waru kurakura</i>	<i>kanyi-ningi</i>
	and-they those ones	useless fire	were having
	Carrier	Attribute:thing	Process
	But at that time those people had useless fire.		

5.4.2.2c *Interpretation of kanyi-ni as a relational process*

The function of the verb *kanyi-ni* is to temporalise a possessive relation, in this instance of example [5:98] as continuous past *kanyi-ningi* ‘were having’, which construes the relation as persistent in the past. To English speakers, ‘were having’ may sound like a material process because present-in-past or present-in-present tenses tend to denote material clauses but are marked tense options in relational clauses. However in Western Desert a clause with *kanyi-ningi* definitely construes a relation, and not an action, on three criteria:

- i) in TRANSITIVITY, the clause realises a relation of possession,
- ii) in TENSE, continuous tense realises the persistence of the possessive relation. Simple past is punctiliar in Western Desert and relational processes are almost never in simple past, e.g. *?kanyi-ngu*. (The opposite is the case in English, where simple past realises a persistent relation ‘he had it’, or past-in-past ‘he did have it’). Likewise the imperative form for relational processes is also continuous, e.g. *nyangatja kanyi-nma* ‘have (keep) this-!’, and there is no punctiliar imperative form, or rather what could be a punctiliar form is a completely different lexical item *kanyila* ‘hill wallaby’. The persistent temporality of past possessive relations may also be realised in present tense, as in example [5:99] below.
- iii) in TONICITY, *kanyi-ni* is construed as a non-salient grammatical item, since the culminative focus is on the Attribute that precedes it, not the Process (see §3.4.2 above, and example [5:99] below). In other words, the small class of relational processes in Western Desert are treated as grammatical items, in contrast to the large lexicon of action processes.

[5:99]					
1	<i>panya</i>	<i>tjinguru</i>	<i>anangu kutjupa tjuta-ngku</i>	<i>tool panya wiru</i>	<i>kanyi-ni</i>
	that is	maybe	various people	such good tools	are having
			Carrier	Attribute	Process
	That is maybe various other people have such good tools.				

+2	<i>ka</i>	<i>la</i>	<i>kuli-ningi</i>	<i>nganana</i>	<i>panya</i>	<i>tjinguru</i>	<i>wiya</i>
	and	we	were thinking	we	that	maybe	not
			Carrier	Attribute			Process
	And we were thinking, "Maybe we don't have any."						

Where the Carrier of an unfolding possessive relation is instantiated by a common nominal or demonstrative it is inflected as active to distinguish it from the possessed Attribute which is neutral. In clause 1 of example [5:99] above, the Carrier *anangu kutjupa tjuta-ngku* is inflected as ACTIVE to distinguish it from the NEUTRAL Attribute *tool panya wiru*. This Carrier is no more 'ergative' than the Senser *wati kutjupa tjuta-ngku* in Text [3:5] above. The relation between the Carrier and Attribute is possession, not causation, contra the formalist label of 'agentive subject'. In +2 of example [5:99] above, the possessive Process is realised elliptically by the negative *wiya*, presuming *kanyi-ningi* from clause 1 [5:99]. In this case it is the negation that is under focus.

5.4.2.3 Circumstantial attribution

In circumstantial attribution a circumstance is ascribed to a Carrier, such as Place, Accompaniment or Comparison. In persistent circumstantial relations this is realised by juxtaposition of Carrier and Attribute: circumstance, as in intensive and possessive types. Unfolding circumstantial relations are realised by a verb of stance.

5.4.2.3a Persistent

Persistent circumstantial attribution is realised by a nominal circumstance as Attribute juxtaposed with the Carrier. This is most frequently a Place, but also includes the causal circumstantial meanings of Purpose and Reason. In the context of Purpose, the Attribute may also be an embedded non-finite irrealis process, with non-specific person reference, realised by the verbal inflection *-njaku*.

5.4.2.3a (1) Attribute: place

[5:100]	<i>paluru</i>	<i>ngura nyara-ngka</i>
	s/he	at yonder place
	Carrier	Attribute:place
	She's over there.	

5.4.2.3a (2) Attribute: purpose

Attributive circumstances of Purpose may be a thing [5:101], or process, realised by an embedded clause [5:102].

[5:101]	<i>nyanga-tja</i>	<i>malu-ku</i>
	this	for kangaroo
	Carrier	Attribute:purpose
	This is for kangaroos.	

- [5:102] *tjiwa nyanga mai rungku-ntjaku*
 this grindstone [[to grind vegetable food]]
Carrier Attribute:purpose
 This grindstone is for grinding vegetable foods.

5.4.2.3a (3) *Attribute: reason*

- [5:103] *wiya pika panya mina-nguru*
 no that sickness from water
Carrier Attribute:reason
 No, that sickness comes from the water.

5.4.2.3b *Unfolding*

The same three observations made above about unfolding possessive relations, also hold for circumstantial processes: i) the circumstantial relation is analysed into a verbal and a nominal element, ii) past tense is always continuous, and iii) the verbal element is spoken as a non-salient grammatical item. Verbs functioning as circumstantial processes realise stance *ngari*- 'lie', *nyina*- 'sit', *ngara*- 'stand', *pupa*- 'crouch'. The following examples illustrate Attributive circumstances of Place, Quality, Possession and Accompaniment.

5.4.2.3b (1) *Attribute: place*

The most common type of circumstance is Place, as in example [5:104].

- [5:104]
- 1 *anangu tjuta nyina-ngi manta nyanga-ngka*
 people were sitting in this land
Carrier Process Attribute:place
 The people were living in this land.
- 2 *manta wingki-ngka kunyu nyina-ngi anangu tjuta*
 in all lands it's said were sitting many people
Attribute:place Process Carrier
 In all the lands, it's said, the people were living.

5.4.2.3b (2) *Attribute: quality*

Other types of circumstantial relations may also be verbalised, including qualities [5:105] which can also be treated as intensive Attributes.

- [5:105] *munu tjana-ya watarku nyina-ngi*
 and they-they in ignorance were sitting
Carrier Attribute:quality Process
 ...but furthermore those people were living in ignorance.

5.4.2.3b (3) *Attribute: possession*

The following example illustrates Possession, first as a separate circumstance that extends the Attribute of an unfolding possessive relation, i.e. it is the Attribute *waru kurakura*

'useless fire' that is extended with the Possession *tili maru-tjara* 'with black brands'. In the second clause this possession is restated as the Attribute of an unfolding possessive relation, i.e. it is 'they' (the people) were living 'with black brands' *tili maru-tjara*.

[5:106]

- | | | | | | |
|---|-------------|-------------------------------------|----------------------|--------------------|------------------------|
| 1 | <i>munu</i> | <i>ya paluru tjana</i> | <i>waru kurakura</i> | <i>kanyi-ningi</i> | <i>tili maru-tjara</i> |
| | and | they ₃ they ₃ | useless fire | were having | with black brands |
| | | Carrier | Attribute | Process | Possession |

But at that time those people had useless fire, with black firebrands.

- | | | | | |
|---|-----------------------------|-------------|--------------|------------------|
| 2 | <i>tili maru-tjara</i> | \emptyset | <i>kunyu</i> | <i>nyina-ngi</i> |
| | with black brands | (they) | it's said | were sitting |
| | Attribute:possession | (Cr) | | Process |
- With black firebrands, it's said they were living.

5.4.2.3b (4) Attribute: accompaniment

In example [5:107] this possession reappears as a circumstantial Attribute of Accompaniment, realised by the LOCATIVE inflection *-ngka*. Again the unfolding relation is realised by a verb of stance.

- | | | | | | |
|---------|-----------|--------------|------------------------|--------------------|-----------------------------|
| [5:107] | <i>ka</i> | <i>kunyu</i> | <i>wati kutju-ngku</i> | <i>Kipara-ngku</i> | <i>tili wiru-tjara-ngka</i> |
| | and | it's said | one man Kipara | | with good firebrands |
| | | | Carrier | | Attribute:accomp |

nyina-ngi
was sitting
Process

And apparently there was only one man, only Kipara, who was living with fire with good firebrands.

Here the possession *tili wiru-tjara* 'with good firebrands' is implicitly referring back to the previous mention of *waru* 'fire', i.e. again it is the fire that possesses 'good firebrands'. This means that the Carrier *Kipara* is accompanied by 'fire with good firebrands' as in the clause rank translation. However it is not possible in Western Desert to embed one circumstance in another (as in English 'with fire [with good brands]'), rather the possession *tili wiru-tjara* is simply inflected with the locative suffix to realise Accompaniment.

5.4.2.3b (5) Choice of stance verb

The choice of stance verb depends on the nature of the entity functioning as Carrier. For example, 'trees stand', 'water lies', 'people sit' and sometimes 'animals crouch'. The choice of stance verb is variable to some extent, since for example people may also lie or stand, while snakes may lie or crouch (as in Text [3:1]), and houses may stand or crouch. 'Standing' is illustrated for the general Carrier *nganampa* 'ours' in example [5:4] below.

- | | | | | | |
|-------|-----------|-----------------|---------------|----------------------|------------------|
| [5:4] | <i>ka</i> | <i>nganampa</i> | <i>kuwari</i> | <i>wankarra wiru</i> | <i>ngara-nyi</i> |
| | and | ours | today | everything fine | is standing |
| | | Carrier | Time | Attribute | Process |

So today everything is fine for us.

'Crouching' is illustrated for the general Carrier *nyaa* 'what?' in example [5:108].¹⁴

[5:108]	<i>nyaa</i>	<i>nyangatja</i>	<i>pupa-nyi</i>
	what?	this	is (crouching)
	Attribute	Carrier	Process
	What is this crouching?		

5.4.2.3b (6) *Obligation as circumstantial attribution*

There is one variant of unfolding circumstantial attribution that functions as objectified obligation 'you are supposed to go' (see interpersonal metaphors in §4.3.6 above). In this case the Attribute is an embedded irrealis process, as in example [5:109].

[5:109]	<i>nyuntu</i>	<i>kunyu</i>	<i>anku-ntjaku</i>	<i>ngara-nyi</i>
	you	it's said	[[to go]]	are standing
	Carrier	Attribute:purpose		Process
	It's said you are supposed to go.			

5.4.2.3b (7) *Ellipsed circumstantial attribution*

Unfolding circumstantial attribution may also be realised without a circumstantial constituent, where the location is recoverable in the context of situation [5:110]. These function similarly to existential clauses in English, but in Western Desert they are not a separate process type; rather the circumstantial relation is realised by the process alone, and the circumstance is simply ellipsed.

[5:110]	<i>mai wiya</i>	<i>ngari-nyi</i>
	no food	is lying (here)
	Carrier	Process
	There is no food.	

5.4.2.4 *Caused attribution*

Attributive intensive relations may be caused by an additional agentive participant, the **Attributor**. In this case the Attribute is inflected as an effective process, **Attributor** is inflected as **ACTIVE**, and the Carrier is **NEUTRAL**. These are of two types; the first is related to material processes in that the Carrier is classified by a change in form; the second is related to verbal processes in that the Carrier is classified by a change in vocation, i.e. what the Carrier is called.

5.4.2.4a *Material (change in form)*

Causative attribution is the mirror of inceptive attribution, hence the proportionality in Table 5.4 above, of *wati-ri-ngu* 'did become a man' to *wati-nu* 'did make a man' as inceptive is to causative attribution. Example [5:111] illustrates this proportionality in a single clause complex, for an inceptive and caused quality. Inceptive attribution is realised by

¹⁴ As noted previously, European general relational verbs such as *is*, *est*, *esse*, are also derived from Indo-European verbs of stance, i.e. from the same root as *stance*.

the suffix *-ri-*, followed by mood, tense or aspect inflections, exemplified in [5:111 α] with *lipi-ri-ngu* 'did become wide'. Material causation is realised simply by a mood, tense or aspect suffix on the Attribute. In example [5:111 β] this is realis switch reference *utju-nyangka* 'having made narrow-SW'.

[5:111]

α	<i>munu</i>	<i>-la wankarra ngaalpa nganampa</i>	<i>lipi-ri-ngu</i>
	and	all of us, our breathing	did become wide
		Carrier	Attribute:inceptive

So for all of us it was as if our breath opened up,

β	<i>nganampa ngaalpa</i>	\emptyset	<i>utju-nyangka</i>
	our breathing	(the whites)	having made narrow-SW
	Carrier	Attributor	Attribute:causative

since they had closed off our breath.

5.4.2.4b Verbal (change in vocation)

The same proportionality holds for caused verbal attribution, illustrated in example [5:112]. In this type, a class (typically a kinship class) or quality is ascribed verbally by the Attributor, i.e. the Carrier is labelled with a class or quality, and the Attribute is inflected with the effective infix *-ma-*, followed by mood, tense or aspect.

[5:112]

1	<i>Ilyatjari-lu Kutjukuru-lu pula</i>	<i>-nta</i>	<i>katja-nma-nu</i>
	Ilyatjari and Kutjukuru	you	did make a son
	Attributor	Carrier	Attribute:caused

Ilyatjari and Kutjukuru adopted you as their son.

2	<i>palulanguru</i>	<i>-n</i>	<i>walytja-ri-ngu</i>
	from that	you	did become kin
		Carrier	Attribute:inceptive

From that you became kin.





5.4.3 Identifying relations

In identifying relations, both participants are definite, unique individuals. Or rather they represent the same individual but seen from different angles. Halliday (1994a:124) analyses the identifying relationship in terms of a shift in the order of abstraction, i.e. that "one element will be the Value (meaning, referent, function, status, role) and the other element will be the Token (sign, name, form, holder, occupant)". For example, one participant may be a concrete identity realised by a personal or demonstrative pronoun—the Value of the relationship, while the other is a symbolic identity such as a name, role or relationship to the speaker—its Token. This type of structure, with pronominal Value, is the most common form of identifying clause in Western Desert.

5.4.3.1 Identity: name or kin relation

Identifying relations are not as significant a feature of Western Desert as are attributive relations (and are much less significant and varied than they are in English). The most common context for identifying relations in Western Desert is in dialogue, such as the following exchange [5:113].

[5:113]

- | | | |
|----|---|---|
| A1 | <i>wati nyaratja</i>
yon man
Value
Who is that man? |  <i>ngana-nya</i>
whom?
Token |
| B1 | <i>paluru</i>
he
Value
He is my elder brother. |  <i>ngayuku kuta</i>
my elder brother
Token |
| A2 |  <i>ini ngana-nya</i>
whom? name
Token
What is his name? | <i>paluru</i>
he
Value |
| B2 |  <i>ini paluru</i>
he name
Value
His name is Peter. | <i>Peter-nya</i>
Peter
Token |

This exchange of identities unfolds as follows:

- A1 The Value is a man (i.e. class of thing) in the context of situation made definite exophorically by the spatial Deictic *nyaratja*. The Token representing his identity is demanded by the definite *Nya*-element *ngana-nya*. (Note the NEUTRAL inflection here; neither Value nor Token are marked for transitivity function in identifying clauses.)
- B1 The Value is the man identified by the personal *paluru* (functioning anaphorically), and the Token represents his relationship to the speaker with *ngayuku kuta* 'my older brother'.
- A2 A different kind of Token is demanded thematically, with *ngana-nya ini* 'whom? name'.
- B2 The Value is now thematised as *ini paluru* 'he name' and the name *Peter-nya* is supplied as Token.

It can be seen from this exchange of identities that:

- i) both Value and Token are definite,
- ii) the Value is more concrete, i.e. it is identified in relation to the immediate context, and the Token identifies it by some more abstract characteristic, e.g. name or relationship.

- iii) Value and Token can go in either order, i.e. either may function as Theme, although the unmarked sequence is Value ^ Token;
- iv) the element functioning as Value is always Given (which is why it is unmarked Theme), and the Token that identifies it is always focused as New. I have not been able to find any variation from this pattern. (In English by contrast, Halliday (1994a:123–124) explains “that the Identifier always carries the tonic prominence...is the typical pattern, since it is the identity that is likely to be new information, but there is a marked option whereby the Identified is constructed New.”)

5.4.3.2 Identity: role

Aside from name or relationship, other identifying characteristics include role and possession. Extract [5:114] (a later episode from the same text as [3:5]) recounts how the place named *Watar* (or *Mount Lindsay* in English) acquired the role ‘place of fire’, i.e. its role in the system of sacred *tjukurpa* sites throughout the country.

[5:114]

- | | | | | |
|----|---|--------------------|------------------------------|---------------------------|
| 1 | <i>Watar-la</i> | <i>wirkati-ngu</i> | | |
| | at Watar | finally did arrive | | |
| | At Water he finally arrived, | | | |
| +2 | <i>munu</i> | <i>wani-ngu</i> | <i>tili</i> | <i>ngura kutjupa-ngka</i> |
| | and | (he) did throw | firesticks | to other places |
| | and cast out firebrands to all other places. | | | |
| +3 | <i>ka</i> | <i>Watar-nga</i> | [[<i>waru kampa-ntja</i>]] | <i>waru piti</i> |
| | and | Watar | fire burning | fire place |
| | Value:name Token:role | | | |
| | So Watar is known as Fire Burning, the Place-of-Fire. | | | |
| 4 | <i>waru piti</i> | <i>Watar-nga</i> | <i>Mount Lindsay</i> | |
| | fire place | Watar | Mount Lindsay | |
| | Value:role Token:name | | | |
| | The Place-of-Fire is Watar, Mt Lindsay. | | | |

In clause 3 *Watar* is Value/Theme because it is Given in the preceding text, and the Token is its role in the Western Desert system of sacred places. This role is identified as the name of a process, *waru kampa-ntja* ‘fire burning’, elaborated as *waru piti*, literally ‘waterhole of fire’, since most religiously significant places are also water sources, or *piti*. In clause 4, the latter role becomes Value/Theme and its Token is the re-stated name *Watar*, elaborated with the English name *Mount Lindsay*. (Note the similarity here to the culminative information wave structure described for the earlier stages of this Text [3:5] in §3.4.2 above.)

5.4.3.3 Identity: possession

Since possession is another way of defining an entity, it may also function as Token, as we have seen for a ‘possessed’ kin in example [5:113] above *ngayuku kuta*. A possessive pronoun may also function as Head of the nominal group functioning as Token, as in the exchange [5:115].

[5:115]

A *ngana-ku motorcar palatja*
 whose? motorcar that
 Value **Token**
 Whose car is that?

B *wiya palatja Andrew-ku*
 no that Andrew's
 Value **Token**
 No, that is Andrew's.

Unlike intensive identifying clauses, it is possible (if infrequent) for possessive Tokens to be verbalised by the inceptive inflection, as in example [5:116].

[5:116] *palatja kuwari ngayu-ku-ri-ngu*
 that now has become mine
 Value **Time** **Token:inceptive**
 That is now mine.

The potential for construing abstract relations through identifying relations is there in the Western Desert language, although it is less prominent than in modern English, particularly written English. Nevertheless it is significant that an identity can be represented by a nominalised process such as *waru kampa-ntja* 'fire burning', since this is a central feature of written discourse in English (Halliday & Martin 1993).

5.4.3.4 Assigned identity

As with attributive relations, intensive identifying relations may also be brought about by an additional agentive participant, the **Assigner**. In this case the identifying relation is realised as process such as *inini* 'naming', and the Assigner takes ACTIVE inflection, while both Value and Token are inflected as NEUTRAL, as exemplified in the statement [5:117] and *nya*-question [5:118].

[5:117] *palu-mpa mama nguntu-ngku palu-nya ini-nu Tjimiya-nya*
 her mother father her did name Tjimiya
 Assigner **Value** **Process** **Token**
 Her parents named her Tjimiya.

[5:118] *nyaaku piranma-ngku ini panya tju-nu Council nyangatja*
 why? the whites this name did put this Council
 Purpose **Assigner** **Token** **Process** **Value**
 Why did the whites give this name to this Council?

Assigned identity is topologically related to effective action on the one hand, and verbal signification on the other. Thus the action verb *tju-* 'put' functions as the assigning Process in example [5:118] above, while the saying verb *wangka-* functions in the same role [5:119] below, as 'calling'. Both clauses however differ from either action or signification, structurally in the presence of a third participant the Value, and semantically in that a semiotic entity is assigned to it as its Token.

[5:119]

1 *ka paluru tjapi-nu council nyangatja nyura nyaa wangka-nyi*
 and he did ask this council you3 what? are saying
 Value **Assigner Token Process**

And he asked, "What are you calling this council?"

+2 *ka ngayulu watja-nu Pitjantjatjara Council*
 and I did call Pitjantjatjara Council
 So I said Pitjantjatjara Council,

3 ∂ *panya ngayulu kuli-ni nyara Pitjantjatjara Band-nguru*
 that is I am thinking from yon Pitjantjatjara Band
 because I was thinking about that name 'Pitjantjatjara Band',

β *[[kampa kutjupara pitjan-tja]] Pitjantjatjara Council tjungku-ntjikitja*
 the other side coming Pitjantjatjara Council to put-SM
 Token **Process (+Assigner)**
 coming in from the other side, to give it the name 'Pitjantjatjara Council'.

In both clauses 1 and 3 β , the name to be assigned to the council is the Token. In the *nya*-question in 1, this Token is demanded as *nyaa* 'what (name)', and the Assigner is the addressees *nyura* 'you3'. In 3 β , the Token becomes the name 'Pitjantjatjara Council', the Process is one of 'putting', i.e. 'assigning', and the identity of the Assigner is given by the same Medium reference as the speaker.

This concludes the discussion of figure types.

5.5 CIRCUMSTANTIATION

Circumstantiation is the system of resources for modifying a process or participant with some type of circumstantial element. Circumstances are clause rank constituents that are more peripheral to the clause nucleus than are participants. Unlike the figure specific participant roles we have described to this point, circumstances may be associated with any type of figure, although there are tendencies for association with certain types of figure, such as Place with actions of movement. In fact, circumstances occupy a point on the cline of nuclearity-peripherality, between optional outer participants and non-finite enhancing processes. They share semantic and structural characteristics with both, discussed in §5.5.4 below.

There are sixteen types of circumstance, according to their logico-semantic relation to the clause nucleus of the clause, or the participant that they are associated with. These are realised by i) the type of feature functioning as Circumstance: nominal, adverbial or verbal, and ii) the inflection of this feature.¹⁵ Most generally these logico-semantic relations may be

¹⁵ The functions of circumstantial inflections are comparable to those of prepositions in English, and cover a remarkably similar semantic spread. Describing a similar system in Gooniyandi, another Australian language, McGregor (1990) labels such inflections 'post-positions', drawing attention to their functional similarity with prepositions in English. The GENITIVE morpheme *-ku* 'to/for' occurs throughout the grammar (e.g. circumstances of Purpose and Destination, future tense, irrealis non-finite aspect) and realises the general meaning of 'centrifugal motion in time or space, away from the here and now, towards there and then'. The LOCATIVE morpheme *-ngka* 'at, in' has the general sense of 'existence in a spatial or temporal environment' and may be derived from the same root as relational verbs of posture, *ngara*- 'stand' and *ngari*- 'lie', the noun for 'place' *ngura*, and the demonstratives, *nyanga* 'here' and *nyara* 'yonder'.

elaborating, extending or enhancing. Elaborating circumstances are inflected for the effectivity of the clause, and include Role and Comparison, both realised by a nominal group, and Quality, realised by an adverbial group. Extending circumstances are realised by nominal groups with inflecting suffixes. They include:

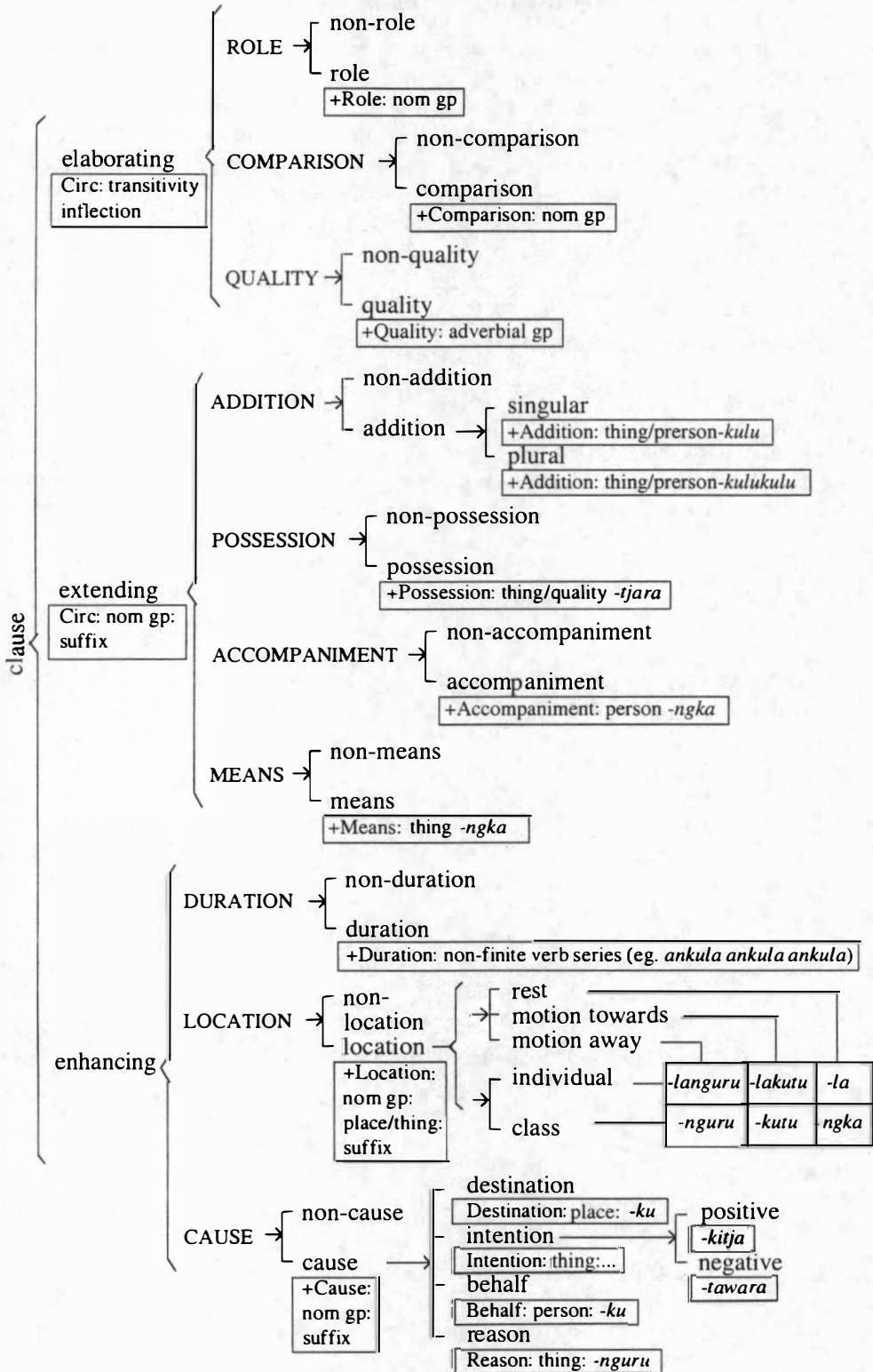
- i) Addition, realised by a 'thing' with the ADDITIVE suffix *-kulu*;
- ii) Possession, a 'thing' or 'quality' with POSSESSIVE suffix *-tjara*;
- iii) Accompaniment, a 'thing' or 'person' with the LOCATIVE suffix *-ngka*; and
- iv) Means, a 'thing' with the LOCATIVE suffix.

Enhancing circumstances include:

- i) temporal Duration, realised by a non-finite verb series;
- ii) types of Location realised by a nominal group which may be a 'place' or 'thing':
 - a) rest with the LOCATIVE suffix,
 - b) motion towards with the ALLATIVE suffix *-kutu*,
 - c) motion away with the ABLATIVE suffix *-nguru*;
- iii) types of Cause realised by a nominal group including:
 - a) Destination which is a 'place' with the GENITIVE suffix *-ku*,
 - b) Intention, a 'thing' with GENITIVE suffix,
 - c) Reason, a 'thing' with ABLATIVE suffix.

Table 5.5: Options for circumstances

Enhancing	structural realisation	gloss
Duration	iterated realis process, e.g. <i>ankula ankula ankula</i>	'going going going'
Location: rest	nominal gp-locative <i>-ngka, -la</i>	'at/in/on (place or time)'
movement towards	nom gp-allative <i>-kutu</i>	'to (place or time)'
away from	nom gp-ablative <i>-nguru</i>	'from (place or time)'
through	nom gp-perlative <i>-wanu</i>	'through (place or time)'
Destination	nom gp-genitive <i>-ku</i>	'(heading) for (place)'
Purpose	nom gp-purposive <i>-kitja</i>	'in order to do (thing)'
Reason	nom gp-ablative <i>-nguru</i>	'from doing (thing)'
Behalf	nom gp-genitive <i>-ku</i>	'for (person)'
Extending		
Accompaniment	nom gp-locative <i>-ngka, -la</i>	'with (person/thing)'
Addition	nom gp-additive <i>-kulukulu</i>	'as well as (person/thing)'
Possession	nom gp-possessive <i>-tjara</i>	'with (possession)'
Means	nom gp-locative <i>ngka, -la</i>	'with (instrument)'
Elaborating		
Bodily Means	nom gp+/- active <i>-ngku</i>	'using (body part)'
Role	nom gp+/- active <i>-ngku</i>	'as (role)'
Comparison	nom gp- <i>purunpa</i> +/- active <i>-tju</i>	'like (person/thing)'
Quality	adverbial gp+/- active <i>-ngku</i>	quality-'ly'



System 5.6: Options in CIRCUMSTANTIATION

These options are set out in Table 5.5 and System 5.6 above. Note that each of the circumstantial systems are potential simultaneous options for a clause, although in practice a clause generally includes no more than two Circumstances.

Not included in Table 5.5 and System 5.6 are options for realising Location with spatial demonstratives and temporal adverbs, e.g. *kuwari* 'now' or *mungatu* 'recently'.

In the examples that follow, participants are labelled by the general terms Medium and Range, i) to clarify the presentation, and ii) because the figure specific participant functions are not relevant to CIRCUMSTANTIATION, which is a simultaneous option with CONFIGURATION TYPE within TRANSITIVITY.

5.5.1 Enhancing circumstances

Enhancing circumstances expand the clause configuration in terms of its Duration, Location, or Cause. Duration is of two types: incomplete and completed. Location includes rest, movement towards and movement from. Options in causal circumstances are similar to those in Location, employing the same set of inflections, but are abstracted from the material model of movement to or from concrete locations, to represent the Purpose, Destination or Reason for events.

5.5.1.1 Duration

There are two types of circumstantial Duration, those expressing incomplete 'ongoing' Duration, and completed Duration.

5.5.1.1a Incomplete duration

The circumstantial meaning of incomplete Duration in time is realised as a non-finite verb series. These verb series may consist of up to six iterated verbs, so that the longer the series, the longer the Duration it construes. The general meaning of realis non-finite aspect is that the process is incomplete. In a hypotactic complex, the unfolding is completed by the finite process on which it is dependent. In verb series of Duration, incomplete aspect is open-ended, so that the ongoing unfolding represented by each unit flows into the next, construing ongoing action.

These series are not part of the verbal group in the clause, but are distinct elements, on the same pattern as nominal and adverbial circumstances. As with other circumstances, Duration may occur at any point in the clause structure, often preceding the Process, or as late New, but rarely as Theme. It is spoken on a 'stepping' tone, like other serial groups, as discussed in §3.4.1 above. If the Duration precedes the Process, this 'stepping' tone is likely to be part of the Pretonic; if it follows the Process, it is likely to be a separate tone group. Example [5:120] illustrates Duration following the Theme, and separated from the Process by another (focused) circumstance element, while example [5:21"] illustrates Duration as late New.

[5:120]	<i>paluru</i>	<i>anku-la anku-la</i>	<i>ngura-ngka</i>	<i>wirka-nu</i>
	he	going going	at camp	did arrive
	Actor	Duration	Place	Process
	She arrived home after walking a long while.			

[5:21"]	<i>watarku</i>	<i>minyma kutjara</i>	<i>tjawa-ningi</i>	<i>tjawa-ra tjawa-ra</i>
	heedlessly	woman two	were digging	digging digging
	Quality	Actor	Process	Duration
	Heedlessly the two women were digging, continuously.			

Duration construes unfolding time as serial. This construal of Duration is independent of any temporal divisions, which are the basis of the English construal of Duration, exact or inexact. Rather it models time as contiguous sequences of unfolding process. This recalls Whorf's description of temporal representations in Native American languages (1938, 1956), which he characterised as congruent with people's subjective experience of 'time becoming later', and contrasted with the 'objectification' of time in 'Standard European' languages, as a quantifiable nominal entity. Such nominal metaphors for Duration allow time to be quantified and classified in nominal groups, but there has been little semantic pressure to exactly quantify unfolding time in the evolution of Western Desert, so ongoing action is realised iconically as serially unfolding process, although events may be located in time with temporal adverbs, e.g. *kuwari* 'now' and time periods, e.g. *kuli* 'summer/hot' (see McConvell 1985, on representations of time in Australian cultures).¹⁶

Example [1:4], (first introduced in §1.2.1 above) includes one circumstance of Quality, three of Duration and one of Place, all contributing to the meaning of ongoing movement through time and space.

[1:4']	<i>ka</i>	<i>paluru</i>	<i>a-nangi</i>	<i>alatjitu</i>	<i>titutjara</i>	<i>anku-la anku-la anku-la</i>
	and	he	was going	utterly	continually	going going going
		Medium	Process	Quality	Quality	Duration
	And he kept right on going continuously, going and going,					
	<i>ngura nyara wanu</i>	<i>wati-pitja-la wati-pitja-la wati-pitja-la</i>				
	through yonder place	crossing crossing crossing				
	Place	Duration				
	through that country over there, moving across continually,					
	<i>anku-la anku-la anku-layii</i>					
	going going going					
	Duration					
	going and going.					

In the context of a process of spatial movement, Duration also implies spatial distance. Example [1:4'] is from a text describing the travels of an ancestor figure over some one thousand kilometres—a great extent in both time and space (the Kipara, see Rose 1991). This is an exceptional example of the feature, but Duration may normally be realised by two, three or more reduplications of a non-finite verb.

5.5.1.1b Completed duration

In clauses representing completed Duration the meaning of action is realised by dependent iterated verbs functioning as Duration. The time when this process is completed is realised by

¹⁶ As discussed in Appendix 2, realis non-finite processes are labelled 'serial verb form' in formalist accounts, such as Goddard (1985), a purely structural word-rank label which focuses on their circumstantial function of Duration, and elides their other significant function as dependent processes in hypotactic clause and verb complexes.

the finite verb instantiating the Process. This is a verbalised temporal noun, such as *munga* 'night', *kalala* 'day', with the inceptive inflection *-ri-*.

[5:121]	<i>paluru</i>	<i>work-arira</i>	<i>work-arira</i>	<i>munga-ri-ngu</i>
	s/he	working	working	did become night
	Actor	Duration		Process
	She worked until nightfall.			

5.5.1.2 Location

The potential for representing circumstances of location in Time and Space is realised either as a nominal group with LOCATIVE, ALLATIVE and ABLATIVE inflections, or as a temporal adverb. Both Place and Time may be either absolute or relative, and there is a distinction within each between rest and motion, and within motion between motion towards, motion away from, and motion through. The same nominal suffixes are deployed for realising these meanings in Time or Place. At rest, common nominals and demonstratives are inflected with *-ngka*, and pronouns and proper names with *-la*. In motion *-la* is included in the inflection for pronouns and proper names. There is also a set of temporal and spatial adverbs realising specific options in Time and Place. These options are recorded in Tables 5.6 and 5.7.¹⁷

Table 5.6: Absolute and relative locations

		Place	Time
Absolute		<i>ngura-ngka</i> 'in camp' <i>Angatja-la</i> 'at Angatja'	<i>munga-ngka</i> 'at night' <i>mungawinki</i> 'in the morning'
Relative	here/now	<i>nyanga-ngka</i> 'here' <i>nyanga-kutu</i> 'around here' <i>tjangkati</i> 'near side'	<i>kuwari</i> 'now, today' <i>kuwaritu</i> 'immediately'
	there/then	<i>pala-ngka</i> 'there' <i>mungkata</i> 'far side'	<i>mungatu</i> 'recently', <i>kuwaripa</i> 'shortly'
	yonder/later	<i>nyara-ngka</i> 'yonder'	<i>iriti</i> 'long ago' <i>ngura iriti</i> 'already long ago' <i>ngula</i> 'later on'

¹⁷ Options in Absolute and Relative Location, and in Rest and Motion closely parallel those described by Halliday (1994a:153) for English (from which Tables 5.5 and 5.6 are modelled), although of course the languages differ markedly in the domains of temporal Duration and spatial Distance.

Table 5.7: Rest and motion¹⁸

		Spatial	Temporal
Rest		<i>ngura-ngka</i> 'in camp' <i>Angatja-la</i> 'at Angatja'	<i>munga-ngka</i> 'at night' <i>mungawinki</i> 'in the morning'
Motion	towards	<i>ngura-kutu</i> 'to camp' <i>Angatja-lakutu</i> 'to Angatja'	<i>munga-kutu</i> 'till night' <i>pirriya-kutu</i> 'spring' (i.e. towards the <i>pirriya</i> wind time)
	away from	<i>ngura-nguru</i> 'from camp' <i>Angatja-languru</i> <i>palu-languru</i> 'from there'	<i>palu-languru</i> 'from then' <i>kuli-nguru</i> 'from summer'
	through	<i>ngura-wanu</i> 'via the camp' <i>Angatja-lawanu</i> 'via Angatja'	—

Circumstances of Location have been exemplified in texts and examples throughout the survey. Here I will illustrate the categories in Tables 5.6 and 5.7 with a few examples.

5.5.1.2a Place: rest

The following examples illustrate types of Place such as 'at place', 'in a thing', 'on a person' and 'in an environment'. The examples also give a variety of realisations for these Places.

5.5.1.2a (1) At a place

- [5:122] Demonstrative (with neutral or locative inflection) *nyara-ngka*
nyaratja nyina-nyi munkarra ma-tjawa-!
yonder is sitting other side dig over there-!
Place Process Place Process
It's over there. On the other side, dig over there.

- [5:123] Adverb *uril-ta*
nyangatja katja tjinguru nyara-ngka nyina-nyi uril-ta
this son maybe yonder is sitting outside
Place Place Process Place
Here, son! It may be over there, on the outside.

- [5:124] Proper name *Amata-la*
anangu tjuta panya nyina-ngi Amata-la nyina-ra nyina-ra
those people were sitting at Amata sitting sitting
Medium Process Place Duration
Those people were living at Amata all the time.

¹⁸ The inflection *-nguru* 'away from' and the word for 'place', 'camp' or 'estate' *ngura* appear to be closely related phonologically and semantically. This inflection may derive from a phonetic reduction of *ngura* plus the duration morpheme *-tu*. The sense of *-languru* is 'emerging from location *-la*, in a place *ngura*, continuously *-tu*.' This contrasts with *-lakutu* 'moving towards *-ku*, 'a location' *-la*, 'continuously' *-tu*'.

5.5.1.2a (2) *In a thing* piti-ngka

[5:5']	<i>piti-ngka</i>	<i>-ni</i>	\emptyset	<i>nguwanpa</i>	<i>tjarpa-tju-nu</i>
	in a burrow	me	(it)	nearly	did drag in
	Place	Goal	Actor	Quality	Process
	Into a burrow I was nearly dragged by it.				

5.5.1.2a (3) *On a person* kata-ngka

[5:30']	<i>nyanga kata-ngka</i>	<i>waru panya</i>	<i>kampa-ngi</i>
	here on head	that fire	was burning
	Place	Actor	Process
	Here on his head that fire was burning.		

5.5.1.2a (4) *In an environment*

[5:6']	Common Head+demonstrative Deictic <i>manta nyanga-ngka</i>		
	<i>anangu tjuta</i>	<i>nyina-ngi</i>	<i>manta nyanga-ngka</i>
	people	were sitting	in this land
	Medium	Process	Place
	People were living in this land.		

[5:71']	Common Head+Classifier <i>ngura kutjupa tjuta-ngka</i>			
	<i>ka ngura kutjupa tjuta-ngka</i>	<i>wati kutjupa tjuta-ngku</i>	<i>kuli-ni</i>	
	and in various places	various men	think	
	Place	Medium	Process	

wati kutju

one man

Range

So in numerous places, a great many men were thinking of this one man,

5.5.1.2b *Place: motion*

There are three options in Place: motion, towards, away from and through.

5.5.1.2b (1) *Motion towards: allative inflection* -kutu

[5:125]	<i>panya tjinguru</i>	<i>letter uwankara</i>	<i>a-nu</i>	<i>ngura wingki-kutu</i>
	that is maybe	all the letters	did go	to every place
		Medium	Process	Place
	That is maybe all the letters were sent to every community.			

5.5.1.2b (2) *Motion away: ablative inflection* -nguru

[5:126]	<i>ka palulanguru</i>	<i>pitja-ngu</i>	<i>Kalgoorlie-languru,</i>
	and from then	did come	from Kalgoorlie
		Process	Place
	And after that they came from Kalgoorlie.		

5.5.1.2b (3) *Motion through: perlative inflection -wanu*

- [1:3''] *ngura nyara wanu wati-pitja-la wati-pitja-la wati-pitja-la*
 through yonder place crossing crossing crossing
Place Duration
 ...through that country over there, moving across continually,

5.5.1.2c *Time*

Time is realised by temporal adverbs or by inflected nominal groups.

5.5.1.2c (1) *Temporal adverbs*

- [5:4'] *ka nganampa kuwari wankarra wiru ngara-nyi*
 and ours today everything fine is (standing)
Medium Time Range Process
 So today everything is fine for us.
- [5:127] *ka la piruku kuli-la munu wangka ngula*
 and we again think and talk later
Medium Quality Process Process Time
 ...and we'll think more and talk about it later.
- [5:128] *mungawinki-lta meeting tjartari-ngu*
 in the morning-at that meeting did start
Time Medium Process
 In the morning the meeting started.

5.5.1.2c (2) *Inflected adverb of position mala-ngka*

- [5:7'] *munu -la nganana mala-ngka waintari-ngu*
 and we we afterwards did travel without stopping
Medium Time Process
 And as for us, afterwards we kept moving ahead.

5.5.1.2c (3) *Inflected nominal groups*

- [5:129] Time period *July-ngka*; temporal adverb *kuwaripa-ngka* 'at soon' (i.e. 'before')
- 1 *munu palulanguru panya football carnival tjatari-ngu Amata-la*
 and from that there the football carnival did start at Amata
Medium Process Place
- July-ngka*
 in July
Time
 And after that the football carnival started at Amata, in July.
- +2 *ka nganana pala palu-la kuwaripa-ngka*
 and we before that there
Medium Time

sports weekend kuwaripa-ngka

before the sports weekend

Time

But before that, before the sports weekend, we

nganman-tju telegram iya-nu

first telegram did send

Quality Range Process

first sent telegrams.

5.5.1.2d Relative distance

In Western Desert the meaning of spatial Distance is always relative; space is not measured in units (as is possible in English), but in terms of relative proximity. Relative distance is realised by a small set of adverbs set out in Table 5.8 (adapted from Eckert & Hudson 1988:175).

Table 5.8: Adverbs of distance

adverb	gloss
<i>tjangkati</i>	'on the near side'
<i>munkarra</i>	'on the far side'
<i>ngururpa</i>	'in the middle'
<i>parri parri</i>	'around the perimeter'
<i>tjaru</i>	'at the bottom'
<i>katu</i>	'at the top'
<i>unngu</i>	'inside'
<i>urilta</i>	'outside'
<i>ila</i>	'close'
<i>patu</i>	'apart'
<i>parari</i>	'far away'

Like demonstratives, many of these items may function as either discrete circumstances, or as group rank Deictics, exemplified below.

[5:130] as Place: Rest

kuta ila -na ngarin-tjikitja

EB close I to lie

Place Medium Process

Elder brother, I want to sleep close to you.

[5:131] as Place: Motion towards *pararitja-kutu*; as Deictic *ngura parari*

pararitja-kutu a-nu ngura parari Yalata-la iti-ngka

to far away did go to a distant place near Yalata

Place Process Place Place

They went far away, to a distant place near Yalata.

5.5.1.3 Causal circumstances

Causal circumstances include Destination, Purpose, Reason and Behalf, all realised by inflected nominal groups.

5.5.1.3a Destination

Destination, realised by the GENITIVE inflection *-ku*, represents the meaning of '(heading for) intended spatial destination'. The nominal group is a name or class of place, e.g. *Angatja-ku* 'for Angatja' [5:132], *uru-ku* 'for the waterhole', and the process it is associated with is typically one of movement, glossed in English as 'heading for'.

[5:132]	<i>nganana</i>	<i>towna-ku</i>	<i>ana-nyi</i>
	we	for town	are heading
	Medium	Destination	Process
	We're heading for town.		

5.5.1.3b Purpose

There are two types of purpose. The most common is the general meaning of purpose, realised by the GENITIVE inflection. The other more specifically represents 'intention', realised by the PURPOSIVE suffix *-kitja* on an entity that represents an intended activity, e.g. *malu-kitja* 'for (hunting) kangaroos'.

5.5.1.3b (1) Purpose: general

[5:133]	<i>ka palulanguru</i>	<i>football-aku</i>	<i>pitja-ngu</i>
	and from then	for the football	did come
		Purpose	Process
	And after that they came for the football.		

5.5.1.3b (2) Intention

[5:134]	<i>paluru</i>	<i>malu-kitja</i>	<i>a-nanyi</i>
	he	for kangaroos	is going
	Medium	Intention	Process
	He's going hunting for kangaroos.		

5.5.1.3c Reason

Circumstances of Reason refer to a process, as a result of which another process comes into being. As with Purpose, the cause is represented metaphorically by a participant in the causative process, with ALLATIVE inflection *-nguru*, e.g. *wama-nguru* 'from (drinking) grog' [5:135].

[5:135]	<i>palu-ru</i>	<i>kata pika</i>	<i>wama-nguru</i>
	s/he	sore head	from grog
	Medium	Range	Reason
	She's got a headache from drinking grog.		

5.5.1.3d *Behalf*

Circumstances of *Behalf* indicate who a process is performed for, realised by the GENITIVE infection [5:136]. However, processes may also be performed for a non-human *Behalf*, such as *nganampa manta-ku* ‘for our land’ [5:26].

[5:136]	<i>kuka pala</i>	<i>tjara-la</i>	<i>nganampa walytja tjuta-ku</i>
	that game	divide up	for our relations
	Range	Process	Behalf
	Divide up that meat for our relations.		

[5:26’]	<i>pulkara</i>	<i>tjana-la</i>	<i>wangka-ngi</i>	<i>piranpa tjuta-ngka</i>	<i>nganampa manta-ku</i>
	strongly	to them	were talking	to the whites	for our land
	Quality	Receiver	Process	Receiver	Behalf
	We were talking strongly to them, to the whites, for our land.				

5.5.2 *Extending circumstances*

The most general meaning of extension is the logical relation of composition, i.e. as part to whole, or part to part. Extending circumstances are of three general types: Accompaniment, Possession and Means.

5.5.2.1 *Accompaniment*

Halliday (1994a:156) describes the meaning of Accompaniment as “a form of joint participation in a process”. One entity is realised as a direct participant in the clause, while the other entity which accompanies it is realised as circumstance. Accompaniment is of two types: Comitation and Addition, realising the extending relations of ‘with’ or ‘and’ as a circumstantial element.

5.5.2.1a *Comitation*

Comitation realises an additional participant in a process as a separate circumstantial element, inflected with the LOCATIVE nominal suffix *-ngka*. This second participant is construed as accompanying (i.e. ‘with’) the Medium. Although it employs the same inflectional morpheme, Comitation is semantically distinct from circumstances of Place and Time, since the accompanying entity is not a spatio-temporal location.

5.5.2.1a (1) *Accompanying person*

[5:137]	<i>ngali</i>	<i>wati tjuta-ngka</i>	<i>nyina-ngi</i>
	we2	with the men	were sitting
	Medium	Accompaniment	Process
	We were with the men.		

5.5.2.1a (2) Accompanying thing

[5:107']	<i>ka</i>	<i>kunyu</i>	<i>wati kutju-ngku</i>	<i>Kipara-ngku</i>	<i>tili wirutjara-ngka</i>
	and	it's said	one man	Kipara	with good firebrands
			Medium		Accompaniment

nyina-ngi
was sitting

Process

And apparently there was only one man, only Kipara, who was living with fire with good brands.

5.5.2.1b Addition

Like Comitaton, Addition also realises a second participant in a process as a circumstance, but as an 'afterthought', more peripheral than Comitaton. Addition may extend either the Medium or Range. In example [5:138], the Medium 'my spouse', and circumstantial Addition 'the children', are both 'coming after a month', i.e. they share the same transitivity role in relation to the Process but 'the children' is expressed as an additional afterthought to the clause nucleus. Addition is realised by the ADDITIVE nominal suffix *kulu* 'as well', often iterated for plurals as *kulukulu*.

[5:138]	<i>ngayu-kuri</i>	<i>kinara kutju-nguru</i>	<i>pitja-nyi</i>	<i>tjitji tjuta kulukulu</i>
	my spouse	after one month	is coming	the children as well
	Medium	Time	Process	Accompaniment

My spouse is coming after one month, and the children as well.

5.5.2.2 Possession

Where an additional entity is a possession or (alienable) part of a thing, it is inflected with the POSSESSIVE suffix *-tjara*. In example [5:23'] below *tili maru-tjara* 'with black brands' is the possession of the Attribute *waru kurakura* 'useless fire'.

[5:23']	<i>munu</i>	<i>-ya paluru tjana</i>	<i>waru kurakura</i>	<i>kanyi-ningi</i>	<i>tili maru-tjara</i>
	and	-they those ones	useless fire	were having	with black brands
		Carrier	Attribute	Process	Possession

But at that time those people had useless fire, with black firebrands.

5.5.2.3 Means

Means is primarily associated with action processes. It represents an object by means of which the Medium performs the action, as additional to the clause nucleus. Means is realised in the same way as Comitaton, by the LOCATIVE inflection.

[5:139]	<i>yuu</i>	<i>nyaratja</i>	<i>palyan-ma</i>	<i>parka tjuta-ngka</i>
	windbreak	there	make-!	with lots of branches
	Range	Place	Process	Means

Make a windbreak there with lots of branches.

[5:140] *tjinguru tip truck-angka kati-ra wani-ntjaku*
 maybe with a tip truck taking to throw away-sw
Means Process
 ...to cart it away, perhaps with a tip truck.

In Western Desert, entities which are not hyper-animate, such as stones, rarely effect a result on other entities, i.e. they rarely participate as Actor in effective actions. They may be associated with effecting a result, but only as circumstantial extensions of the clause nucleus, i.e. as Means. This is a significant feature of the general theory of reality encoded in the ideational grammar. It is quite different from English, in which many types of entities, aside from animals and weather, may participate as Agent in effective clauses. English construes the world of things as potentially acting on each other and on people; Western Desert construes things as potential means of human actions, including effective actions, but not generally as Agents that actualise effects themselves.

5.5.3 *Elaborating circumstances*

Elaborating circumstances include Role, Comparison, Quality and Bodily Means. Their general relation to the participant or process they elaborate is one of generality, as in intensive attributive relations, i.e. classifying or describing. The elaborating relation is overtly realised by iteration of clause rank transitivity markers. Elaborating circumstances are inflected as NEUTRAL when they qualify intransitive Medium or transitive Range, BUT are inflected as ACTIVE when they qualify the Medium in effective or non-projecting signifying clauses. In other words, the circumstantial inflection concords with the inflection of the participant it qualifies. As we discussed in §3.4.1 above, the reason for this inflection concordance is to specify which participant the circumstance elaborates.¹⁹

5.5.3.1 *Role*

Role classifies a participant as one of a general class of entities. With Role the function of inflectional concordance between circumstance and participant is transparent: the circumstance is inflected the same as the entity which it classifies but differently from participants outside the clause nucleus. In intransitive clause [5:141], both Medium and Role are inflected as NEUTRAL.

¹⁹ McGregor (n.d.) makes similar observations for elaborating circumstances in Gooniyandi. McGregor's methodology includes a combination of formalist and SFL categories, so that he follows the formalist convention of labelling the ACTIVE inflection of common and proper nominals as 'ergative'. However, McGregor goes on to accurately identify the circumstantial functions of the ACTIVE inflection in transitive clauses, including Role and Quality (identified as "nominal expressions functioning as Attributes of ERG PPs"), and Bodily Means, which he labels as Instrument.

As mentioned in §A.2.4, Goddard (1985) labels circumstances of Quality as 'active adjectives' because like nominal groups they inflect for transitivity. As McGregor shows, they are more accurately adverbial groups functioning as circumstances which are discrete clause constituents. Of course some of the adverbs functioning as Head of an adverbial group may also function as Epithets in a nominal group. In an effort to assign one function to each form, Goddard has attempted to combine the group rank Epithet function ('adjective') with the inflected clause rank function ('active').

[5:141]	<i>ka</i>	<i>panya</i>	<i>youngfeller-purunpa</i>	<i>paluru</i>	<i>school teacher</i>
	and	that is	like a youngfellow	he	as a school teacher
			Comparison	Medium	Role

nyina-pai

used to sit

Process

...and, that is he was like a youngfellow, working as a school teacher.

In transitive [5:142], Medium and Role are both ACTIVE, while the Range is NEUTRAL.

[5:142]	<i>nyara</i>	<i>tjana-ya</i>	<i>walytja-ngku</i>	<i>kanyi-ni</i>
	yonder	they-they	as self	are holding
	Place	Medium	Role	Process

Those people manage it themselves.

In example [5:142] the verb *kanyi-ni* is functioning as a material action of 'managing', not a relation of 'having', so the Medium is more specifically an Actor, and the Role is inflected as active *walytja-ngku*. Here the Medium is acting in the Role of 'themselves', rather than some occupational, kinship or other role. This 'reflexive' Role is probably the most common in discourse.

In the transitive clause [5:56'] by contrast, it is the Goal that is assigned the Role so both are NEUTRAL (the Medium is ellipsed).

[5:56']	<i>panya</i>	<i>Lands Trust</i>	<i>nyangatja</i>	<i>nyuntu-nya</i>	<i>u-nganyi</i>	<i>99 year lease</i>
	that is	this Lands Trust		to you	are giving	as a 99 year lease
		Goal		Recipient	Process	Role

That is, this Lands Trust is being given to you as a 99 year lease.

5.5.3.2 Comparison

Comparison classifies a participant as resembling a general class of entity, with the COMPARATIVE inflection *-purun-* 'like (a thing)'. The Medium is compared to a general entity, and the circumstance of Comparison takes the same effectivity inflection as the participant it classifies. In example [5:141] above this was NEUTRAL *purunpa*, while in example [5:143] below it is ACTIVE *purun-tju*.

[5:143]	<i>paluru</i>	<i>-ni</i>	<i>mamu purun-tju</i>	<i>ngulu-tji-ngu</i>
	s/he	me	like a demon	did frighten
	Actor	Goal	Comparison	Process

She frightened me like a demon.

5.5.3.3 Quality

Circumstances of Quality elaborate a participant or process in terms of a general quality, realised by an adverbial group. While Role and Comparison clearly qualify participants, Quality may qualify either a participant or the Medium+Process nucleus, and are inflected as ACTIVE if the nucleus is transitive. Three types of qualities exemplified below are general, modal and positional qualities.

5.5.3.3a General qualities

In example [5:144] the Quality is marked as ACTIVE to indicate that it qualifies a transitive process.

[5:144] *wala-ngku watja-la*
 quickly tell-!
Quality Process
 Tell me quickly!

By contrast in example [5:21''] the adverb *watarku* 'heedlessly' qualifies an intransitive process, with NEUTRAL inflection.

[5:21''] *watarku minyma kutjara tjawa-ningi tjawa-ra tjawa-ra*
 heedlessly woman two were digging digging digging
Quality Actor Process Duration
 Heedlessly the two women were digging, continuously.

5.5.3.3b Modal qualities

A common type of Quality are the modal assessments discussed §4.1. Examples of values in frequency are examples [5:145–146].

[5:145] *nyara palulanguru watja-nu uwa uwankara kati-ntjaku rawa-ngku*
 from that there did say yes everything to take-sw continuously
Range Process Quality
 And after that he said yes, to keep on bringing the whole story.

[5:146] *ka paluru a-nangi alatjitu titutjara*
 and he was going absolutely continuously
Medium Process Quality
 And he kept right on going continuously, going and going,

5.5.3.3c Positional qualities

There is also a sub-set of adverbs that express a Quality of position in time or space, set out in Table 5.9, and exemplified in [5:147].

Table 5.9: Adverbs of positional quality

adverb	gloss
<i>kuranyu</i>	'in front'
<i>mala</i>	'behind'
<i>nganmanpa</i>	'previously'
<i>warra</i>	'to begin with'
<i>kuwaripatjara</i>	'originally'

[5:147] *palu ngayulu kuranyu-ngku nyaku-ntja wiya*
 but I at first didn't see
Medium Quality Process
 But at first I didn't see.

5.5.3.4 Bodily means

In Western Desert, body features are not construed as separate constituents of the body, although they may be separate constituents of a clause. Rather they are construed as more delicate specifications of an animal. Where they represent the means of an action or relation, they are construed as an elaborating circumstance, Bodily Means. This differs from Means in general which represents a separate instrument of the action, an extension of it.²⁰ In one sense Bodily Means is similar to Role, in that it identifies a specific entity with a more general one, but the direction of the relation is reversed; Role generalises while Bodily Means specifies. As with other elaborating circumstances, Bodily Means iterates the inflection of the Medium. Example [5:148] illustrates its ACTIVE inflection in an effective clause.

[5:148] *ngayulu palu-nya mara-ngku pu-ngu*
 I him hand did hit
Medium Range Bodily Means Process
 I hit him with my hand.

5.5.4 Circumstances and non-finite processes

Enhancing circumstances and non-finite processes are closely related both semantically and morphologically. Both represent the semantic environment in which finite processes unfold, with which they are associated in some way. And often the same semantic regions may be realised either as circumstances within a clause, or as non-finite dependent clauses. Enhancing circumstances and non-finite processes are also realised by the same set of inflections, LOCATIVE *-ngka*, *-la*, GENITIVE *-ku*, PURPOSIVE *-kitja*.

Halliday (1994a:158) describes circumstances as ‘minor processes’ within the clause, associated with, but not a participant in, the major process. The circumstantial inflection realises the logico-semantic relation with the major process or a participant in the major process, a similar set of logico-semantic relations that are realised by non-finite enhancing processes. The concordance between the forms and functions of inflections of non-finite processes and circumstances are set out in Table 5.10.

Table 5.10: Circumstantial and non-finite verbal inflections

Location		Realis aspect ‘going’	
personal pronoun	<i>palu-la</i>	<i>anku-la</i>	same Medium
proper name	<i>Angatja-la</i>		
demonstrative	<i>pala-ngka</i>	<i>anku-nya-ngka</i>	switch Medium
common noun	<i>ngura-ngka</i>		
Cause		Irrealis aspect ‘to go’	
Purpose	<i>malu-kitja</i>	<i>anku-ntji-kitja</i>	same Medium
Destination	<i>Angatja-ku</i>	<i>anku-ntja-ku</i>	switch Medium

²⁰ McGregor (1990) presents a similar contrast between Bodily Means and Instrumental Means in Gooniyandi, labelling them as ‘Instrument’ and ‘Means’ respectively. However, this labelling creates a problem for McGregor, in that the “difference between Instrument and Means is difficult to explain, ...it seems to correlate with the difference between hand held (perhaps body held) and not-hand held”. This hypothesis narrowly misses the point that body features elaborate the role of Medium in an action or relation, as Bodily Means, while separate entities extend it as Means. Chappell and McGregor (1995) provide a typological survey of the cryptogrammar of inalienability, in which circumstances of Bodily Means feature.

Non-finite processes that enter into enhancing relations with a finite process are formed by adding the circumstantial suffix to the nominal form. They are thus morphologically and semantically similar to circumstantial clause constituents, but as Halliday describes for English, "they can be expanded to include other elements of clause structure" (1994a:190) (see §6.5 below on complexing and rank).

5.6 Topological perspectives on transitivity

In the analysis of figure types to this point, clauses have been classified either as action, signification or relation, according to criteria which are exclusive to each, including:

- i) whether the figure involves a process,
- ii) the type of process realised by the verb,
- iii) the type of entity instantiating the Medium,
- iv) the inherent number of participants,
- v) the inflection of (pro)nominal groups realising the participants,
- vi) the potential for projection.

Furthermore each general figure type has been further classified according to more delicate criteria, e.g. mental processes of perception and reaction, identifying and attributive relations, etc. This typological classification focuses on differences between categories, defining figure types as general semantic concepts with characteristic clusters of structural realisations. Although the analysis has revealed a much richer, and more elaborate, description of the language than the formalist binary classification of verbs as either transitive or intransitive, I have used the same descriptive principle of typological classification as traditional descriptions.

A complementary perspective on transitivity is described by Martin and Matthiessen (1991), following Lemke (1987/99) who defines a topology as follows.

A topology, in mathematical terms, is a set of criteria for establishing degrees of nearness or proximity among the members of some category. It turns a 'collection' or set of objects into a space defined by the relations of those objects. Objects which are more alike by the criteria are represented in this space as being closer together; those which are less alike are further apart. There can be multiple criteria, which may be more or less independent of one another, so that two texts, for instance, may be closer together in one dimension (say horizontal distance), but further apart in another (vertical distance).

From a topological perspective each figure type is located at the centre of a semantic domain which is closer or farther from others. This perspective does not negate the typological classification of semantic categories as 'doing', 'sensing', 'saying' and 'being/having'. Rather it complements typology as similarity complements difference, elaborating potentials for meaning making, within both languages and linguistic theory.

Two topological perspectives on transitivity resources follow. The first is a nuclear perspective that displays the elements of the transitivity system, processes, participants and circumstances, radially as more central or more peripheral to the structure of the clause. The second is a comparative perspective on figure types that displays sub-types of actions, significations and relations as more or less like each other.

5.6.1 Nuclear perspective

The orbital perspective on transitivity structures, that we have included in our discussion of each figure type, construes the phenomena of experience as a 'figure-ground' motif. The 'figure' consists of one core entity, realised as a nominal constituent, involved in a process, realised as a verbal constituent, or a relation with another nominal constituent. The 'figure' may then be expanded by the involvement of additional entities and qualities, and the whole is enhanced against a 'ground' of circumstantial elements modelled on movement in time and space, also nominally realised.

From a nuclear perspective on transitivity, all clause types make a similar series of selections in five systems. The first obligatory selection is for a clause nucleus, including Medium and either Process if action or signification, or Range if relation. Secondly, process clauses may make a second selection for an inner participant, and the sub-type of this 'inner Range' depends on whether the process is acting or signifying. Thirdly, all clause types may make a selection for an outer participant. In action and verbal types, the process is extended to this outer Range, while in mental reaction and relations an additional Agent engenders the process from outside. Finally, all clause types may make a selection for an 'inner Circumstance' that elaborates or extends a participant or the nucleus, and for an 'outer Circumstance' that enhances the entire figure in a spatio-temporal Location or Cause.²¹ The nuclear perspective on transitivity elements is presented in Figure 5.11.

²¹ The nuclear perspective on the transitivity potential of Western Desert clauses illustrated in Figure 5.11 is comparable with the model of 'nuclear', 'core' and 'peripheral' clause constituents described in role and reference grammar (e.g. Van Valin 1993, 1997), and also used by Dixon (1980, 1994) to classify transitivity functions in Australian languages. However there are a number of important differences. One is the category 'nucleus', which for Van Valin includes only the process ('predicator'), while his 'core' includes both this process and one or more nominal groups ('arguments'). His 'periphery' includes nominally realised circumstances, while interpersonal items such as *wh*-elements fall outside the core in 'pre-core slots', with adverbial groups even more peripheral, outfielding in 'left-detached position'. This formalist model is based on a notion of 'slots' in syntactic structures which certain word classes may fill. Van Valin requires a further 'linking algorithm' to build meaning into this semantically arbitrary syntax.

Another difference between the models is the direction in which they are elaborated. Van Valin (1997) elaborates his nuclear model by incorporating rank, axis, and delicacy into a single structural representation. Each clause analysis includes both transitivity functions (in which interpersonal and textual functions are subsumed as sub-types) and the group, word and morpheme structures that realise them. Delicacy is treated as a feature of rank, with 'lexical phenomena' realising 'predicate, argument structure and actor and undergoer assignment' at word and group ranks, while grammatical ('morpho-syntactic') structures realise 'macroroles and other core arguments'. This degree of complexity means that the model is too cumbersome for extensive text analysis. In a systemic model it is not form and function which are contrasted, but function and realisation, i.e. as paradigmatic and syntagmatic features respectively. Lexis and grammar are treated as more or less delicate features of lexicogrammatical systems at each rank, rather than constituents of different grammatical ranks (cf. Hasan 1987), and grammatical analyses of clause and group rank structures are separated. This modular treatment facilitates text analysis, and also enables the SFL model of nuclear transitivity to be elaborated purely in functional terms (cf. Martin's (1992) treatment of orbital group rank structures). Figure 5.11 is especially elaborate because it incorporates two functional perspectives—both configuration type and nuclearity. It is thus able to model the functional potential of the whole transitivity system in considerable detail.

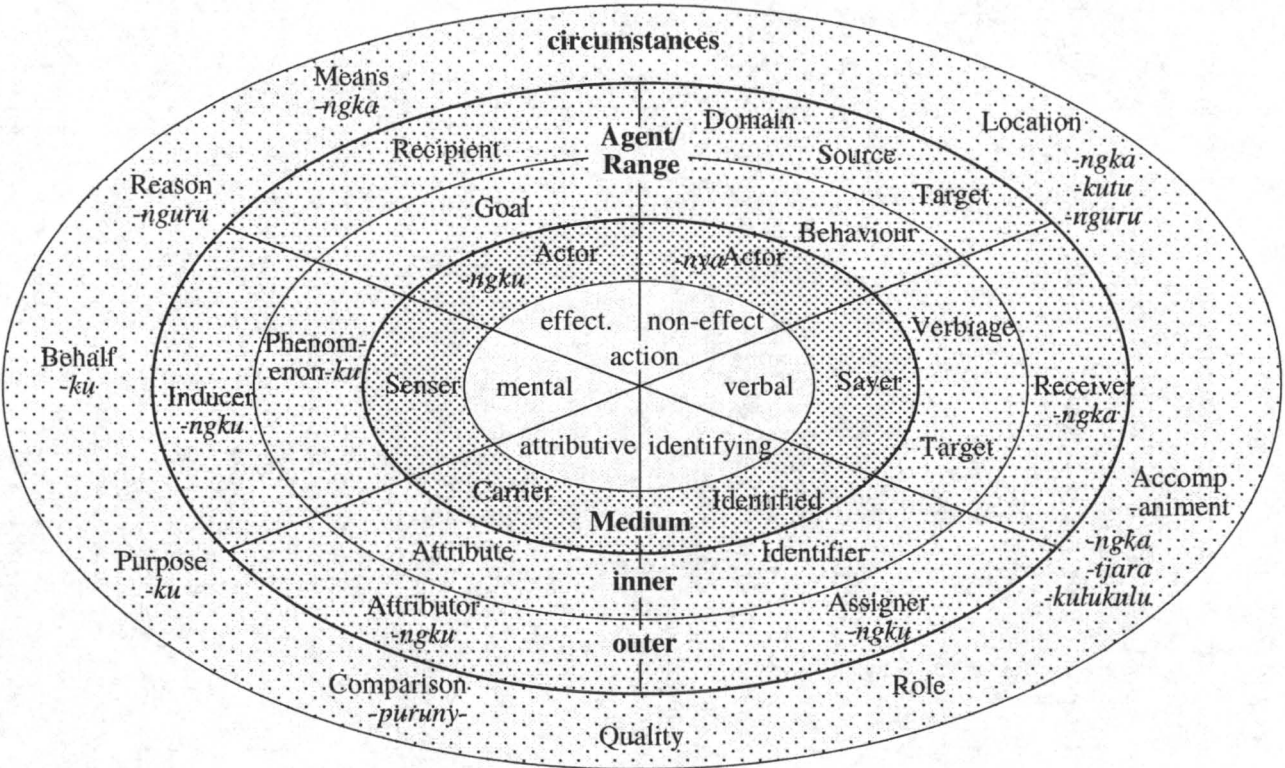


Figure 5.11: Nuclear perspective on transitivity elements

5.6.2 Comparative perspective

Figure 5.11 brings out similarities between figure types in terms of their orbital structures. However there are also more specific semantic similarities between sub-types of figures. These include criteria such as the potential number and types of participants, and potential

for projection. On other criteria, other figure sub-types are maximally different from each other.

Figure 5.12 attempts to capture both of these perspectives on TRANSITIVITY. It begins with the typological categories of ACTION, SIGNIFICATION and RELATION as semantic 'spheres'. The topological resemblances between types are then illustrated as parabolas extending from one sphere towards another, while the greater dissimilarities extend away from this central common ground.

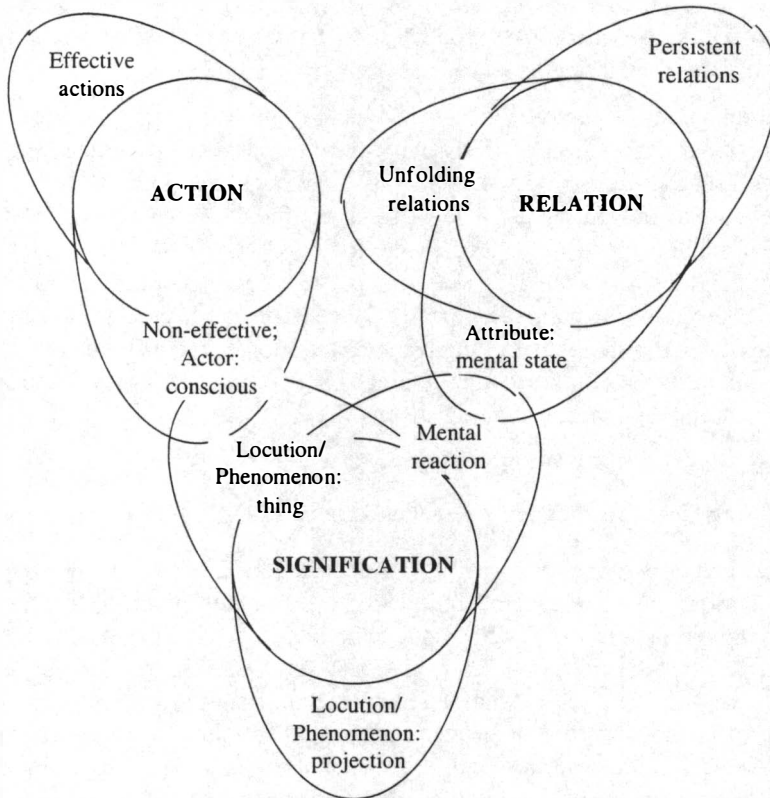


Figure 5.12: Comparative perspective on figure types

Figure 5.12 illustrates the following topological relationships:

- i) Non-projecting verbal processes and mental processes of perception resemble transitive actions. In these cases the *Senser* or *Sayer* resembles an *Actor*, since both are inflected in ACTIVE form, although semantically *Senser* must be conscious, and *Sayer* human, while *Actor* may be any hyperanimate entity. Likewise a *Phenomenon* of perception or *Verbiage* of saying morphologically resemble a *Goal* in their NEUTRAL inflection, although semantically they stand for an abstraction, a semiotic product, while *Goal* represents the concrete entity an action has an effect on.
- ii) Mental processes of reaction resemble attributive relations where the *Attribute* is a reactive mental state (knowledgeable, fearful, etc.), since both *Senser* and *Carrier* are

conscious things, and both may project. However non-projecting reaction clauses must involve a phenomenon which the Sensor reacts to, while the corresponding attributive relations typically do not.

- iii) Relations which are expressed by a process resemble action clauses. In circumstantial and possessive relations, the process is realised by verbs of 'posture' or 'holding' which can function as action processes. Causative attributive and identifying clauses structurally resemble effective actions, since the Assigner or Attributor is inflected in ACTIVE form like an Actor, while the Carrier or Value resembles a Goal with NEUTRAL inflection. However causative identifying clauses include a third participant, the name or role as Token, and semantically the process is one of assigning this to the Value. Likewise the meaning of causative attributive processes is to attribute a quality or class to a Carrier, and the Attribute is inflected as a process.

These complementary perspectives from typology and topology help to explain how a systemic functional description of transitivity systems can vary so much from those in the formalist tradition that dominates Australianist linguistics (e.g. Dixon 1980). For example, the structural similarities outlined above between action and other process clauses, together with the predominance of action verbs in the lexicon, lead formalists to define all clause types in material terms as either SV or AOV, while explaining other patterns in non-functional terms, as semantically arbitrary 'transformations'. On the other hand, if we extend the topological principle from linguistic description to meta-linguistic comparison, we are able to embrace both similarity and difference between our functional approach here and the descriptions produced in a formalist framework.

5.7 Experiential resources in Western Desert and English

The general options for construing experience at clause rank in Western Desert and English are similar, using the same realisational strategies of configurations of verbal, nominal and adverbial groups. Both languages analyse quanta of experience into similar categories of actions, significations and relations, and these figures are associated with an almost identical range of circumstances. The most significant differences emerge below the rank of clause, in the structure of groups, in the realisational strategies for distinguishing functions by inflection or ordering, and in the lexical options available for analysing reality into types of things, processes and qualities. Comparisons are set out in Table 5.11 below.

Table 5.11: Comparison of experiential resources in Western Desert and English.

WDC 5.2–4	Figure type	IFG 5.1–6 and 8
<p>Action: effective: natural/creative/dispositive; non-effective: ranged/non-ranged. Large lexis of action processes, e.g. sounds construed as process.</p> <p>Signification: verbal/mental: perception/reaction (may be induced); projecting/non-projecting.</p> <p>Very small lexical set of mental and verbal processes.</p> <p>Relation: attributive: intensive/possessive/circumstantial; persistent/unfolding (with small set of processes); may be caused.</p> <p>Identifying relations are a small set (no process); may be caused.</p> <p>Purely transitive model of transitivity (i.e. extending rather than causing), except for additional agents in caused reactions and relations.</p>		<p>Material: doing: creative/dispositive; happening: ranged/non-ranged. Vast open lexis of material processes.</p> <p>Mental: perceptive/cognitive/affective.</p> <p>Verbal: similar to Western Desert.</p> <p>Very large open lexis of verbal and mental processes, including borrowing from material lexis.</p> <p>Relational: existential/attributive/identifying; intensive/possessive/circumstantial options for attributive and identifying.</p> <p>Open lexical set of relational processes, borrowed from material, mental and verbal lexis, as well as verbalised conjunctions.</p> <p>Agency: effective/middle options for all process types (both ergative (i.e. causing) and transitive models of transitivity, but ergative becoming dominant in modern English).</p>

WDC 5.5	Circumstantiation	IFG 5.7
<p>Elaborating (inflect for transitivity): Role/Comparison/Quality/Bodily Means;</p> <p>Extending: Accompaniment/Possession/Means;</p> <p>Enhancing: Duration (realised by non-finite verb series)/Place/Time/Cause.</p>		<p>Elaborating: Role;</p> <p>Extending: Accompaniment;</p> <p>Enhancing: Place/Time/Manner/Cause/Condition;</p> <p>Similar options as Western Desert for Place and Time but Duration realised like others by prep. phrase.</p> <p>Projecting: Matter/Angle.</p>

One overt alternative realisation of transitivity functions between the languages is by inflection or constituent order. Of course this is a feature in English only of participants in active clauses. Circumstantial and non-nuclear participant functions in passive clauses are realised by prepositional phrases, comparable to the realisational strategy of inflecting suffixes in Western Desert nominal groups. The constituent order strategy is not a problem for Anangu learners, although preposition options often are. There may be a natural iconicity between transitivity functions and the Actor[^]Process[^]Goal structural sequence, that led to its evolution in a creolising phase of English phylogenesis, from older inflecting strategies in Indo-European languages.

Western Desert and English construe remarkably similar models of material, semiotic and relational reality, as sequences of figures. However there are also significant semantic differences in the experiential grammars of the languages, including alternative functions and diversifying functions. That is, alternative transitivity functions realise alternative

construals of reality in certain domains, while diversifying functions realise more complex and/or abstract construals. One example of alternative functions is in the verbal construal of Duration in Western Desert and its nominal construal in English.

A clause rank example of diversifying functions across figure types is in the option of both transitive and ergative models in English. Halliday (1994a:163) makes it clear that this diversification is associated with the pressures of textual organisation as a written mode evolves:

The coming to predominance of this [ergative] pattern in modern English is one of a number of related developments that have been taking place in the language over the past five hundred years or more, together amounting to a far-reaching and complex process of semantic change. These changes have tended, as a whole, to emphasise the textual function, in the organisation of English discourse, by comparison with the experiential function; and, within the experiential function, to emphasise the cause-&-effect aspect of processes by comparison with the 'deed-&-extension' one.

Specifically the ergative option in English enables Goals and other Ranges to become Subject and thus unmarked Theme in passive voice, the function realised by clitic personal pronouns in Western Desert, as we have discussed above. Secondly it enables Actors to become unmarked culminative New, without requiring tonic focus. Together these ergative voice options enable messages to be freely organised into packages of Theme and New, in writing as well as speech. The experiential pay-off is that agency is foregrounded in the system as an option across process types, whereas in the Western Desert transitive grammar of 'deed-&-extension', Actors, Sensors and Sayers are construed as active but not specifically agentive. The realisational strategy for the latter is inflectional (if participant functions are potentially in doubt); Western Desert does not require the resource of constituent order to distinguish participant functions, and so does not need the resource of passive voice for re-ordering them. One of the consequences of this is that the unmarked culminative tonic focus falls on the clause-final Process in actions and significations, i.e. it is the Process that is construed in TRANSITIVITY and INFORMATION as both nuclear and newsworthy to each clause, with participant and circumstantial elements clustered around it; it is a process focused model of experience. By contrast the voice system of English construes participant identities such as Goal or Actor as newsworthy in clause-final position, focusing on the nominal angle on logogenesis. The importance of the ergative option in constructing written text in particular needs to be a curriculum focus for Anangu learners of English. Current writing in English by Anangu children tends to be limited to sequences of active clauses with little textual variation (see Gray 1986 on these writing patterns amongst indigenous children in NT schools in general).

In the verbal and mental realm, Western Desert and English construe semiosis in broadly similar ways, with three important differences in the model of semiotic reality. One is that Sayers in Western Desert can only be people, whereas English allows books, clocks and other symbol sources to talk to us. Another, perhaps related one is that mental perception in Western Desert is typically construed as a social process of internal 'saying', unlike English which construes thinking and perceiving as internal 'meaning', with internal 'saying' as a marked option. A third is that in Western Desert, mental perception is contrasted with reaction which is typically affective, but may be cognitive (e.g. learning), while cognition in English is contrasted with affection, construing the western dichotomy of head and heart.²²

²² See Painter (1996) on the ontogenesis of mental and verbal projection in English-speaking children.

Diverse options in projection are a major resource for realising involvement and affect in narrative writing in English (Rothery 1990, Macken-Horarik 1996), that Anangu learners have difficulty with and require explicit modelling and perhaps comparison with the Western Desert spoken options. A frequent feature of Anangu learners' narrative writing is the use of visual perception to insert the narrator's consciousness into an activity sequence, e.g. 'and then I saw x is coming'. However it is an unsuccessful strategy in the written mode.

In the relational region the major difference between the languages is in the diversity of options for identifying processes in English. Again this is related to the textual organisation of writing; identifying processes not only have the same range of relation types as attributive ones, but they are reversible, so that Token or Value may be either Theme or New. Halliday and Martin (1993) demonstrate the potential this opens up for organising technical and abstract written discourse, in combination with ideational metaphor. The latter is far and away the most important single difference between the languages, and one that makes written English extremely problematic for speakers of Australian languages (see Martin 1991). Text [7:1] below for example, demonstrates clearly that comparable text structures are available in spoken Western Desert as in written English, for construing history as unfolding stages of events. What Western Desert does not share are the nominalisations functioning as abstract participants, or the variety of consequential conjunctions, that characterise the discourses of history and other social and natural sciences in English. The motivation for these developments have been primarily textual, to organise written arguments, but the ideational consequence, as Halliday (1993:10) explains, is that "experience has been reconstrued in successively more abstract and objectified terms".

Table 5.11: (continued)

WDC 5.7	Experiential group rank	IFG 6.1–6
<p>Nominal groups: realising participants and most circumstances: [Thing (noun/demonstrative/personal/name) [Classifier (thing/facet) [demonstrative Deictic [personal Deictic [Qualifier (nominalised process, infrequent) [Epithet (pos/neg values, frequent) [Intensifier (small set) [Numeral (small set) [transitivity inflection]]]]]]].</p> <p>Both demonstrative and personal Deictics in one group. Infrequently more than three elements in a group.</p> <p>Adverbial groups: circumstantial (qualities)/modal (assessments)/textual (continuatives).</p> <p>Verbs do not form multivariate groups. Tense (five options) and aspect (three options) are realised by verbal inflections.</p>		<p>Prepositional phrases: realising most circumstances.</p> <p>Nominal groups: realising participants and the Range of prepositional phrases: [Deictic (demonstrative/ personal/ comparative) [Numerative: cardinal/ordinal (indefinite set) [Epithetn (quality/ intensifying; pos/neg values) [Classifierⁿ (elaborating/extending/enhancing) [Thing (noun/demonstrative/personal/name) [Qualifier (clause/prep. phrase, frequent)]]]]]]].</p> <p>Frequently more than three elements in a group, particularly in writing, including multiple Classifiers and Epithets and nesting.</p> <p>Adverbial groups: circumstantial/modal/textual.</p> <p>Verbal groups: [Finite (primary tense/ modality/polarity/aspect[Auxiliaries (secondary tenses) [Event]]].</p>

Below the rank of clause the languages begin to diverge markedly around a common core of nominal, verbal and adverbial functions. A general contrast in realisational strategies is in the obligatory order of group constituents. For example, nominal group sequence in Western Desert is [Thing ^ Classifier ^ demonstrative Deictic ^ personal Deictic ^ Qualifier ^ Epithet ^ Intensifier ^ Numeral ^ transitivity inflection], with the option of Deictics preceding the Thing. The sequence in English is the reverse: [Deictic ^ Numerative ^ attitudinal Epithet ^ experiential Epithet ^ Classifier ^ Thing ^ Qualifier]. English transitivity functions may also be realised by a preposition corresponding to the inflecting suffixes of Western Desert groups. In both languages any of these elements may be Head of the nominal group, with the exception of Qualifier in Western Desert.

An alternative realisational strategy that is comparable to the function of inflecting suffixes and prepositions of nominal groups is the realisation of tense, polarity and modality as verbal suffixes in Western Desert, in contrast to the strategy of Finite auxiliary verbs that precede the Event in English. Reversing constituent order of groups is not experientially or interpersonally significant, but does have textual implications: Western Desert nominal groups thematise the Head (or Deictic) and culminate with modifiers and transitivity function, while English thematises deixis (or transitivity function) and culminates with the Head. There also seems to be little cultural significance in group constituent order, since English group structures evolved from earlier Indo-European patterns that resembled those of Western Desert, and still retain certain inflectional features such as plural /N-s/ or past tense /V-ed/. In some environments synthetic and analytical realisations are still alternative options in English, e.g. 'V-ed/ did V'.

Beyond these alternative realisations of similar group rank functions, differences between the languages are characterised by diversification of functions in English groups. In the spoken mode (i.e. phylogenetically early), functional diversifications include nesting of structures within nominal groups, such as pre-Deictic and pre-Numerative structures, which enable functions such as measurement of masses, e.g. 'a barrel of oil' and facets of things, e.g. 'the top of the heap'. Another major example is the serial secondary tense potential of English verbal groups, e.g. 'will have been V-ing', that has no parallel in Western Desert. Both these nominal and verbal group features present major difficulties for Anangu learners of English and require explicit modelling.

Functional diversification of nominal groups associated particularly with the written mode of English include the following tendencies:

- i) complexing of groups and of elements within groups,
- ii) series of Classifiers that may themselves have a nested Classifier^Thing structure,
- iii) series of Qualifiers embedded in each other (facilitated by the group-final position of Qualifier in English),
- iv) embedded clauses functioning as Head of groups, i.e. as clause rank participants,
- v) proliferation of lexical items functioning as Thing or Classifier, including a very large lexicon of abstract and technical items, associated with the proliferation of fields in modern mercantile-industrial culture.

This diversity of group rank functional potentials is characteristic of written English discourse, and requires a systematic focus in literacy curricula.

6 *Logical resources*

6.1 Introduction

The region of the grammar described in this chapter is the logical system of COMPLEXITY, the set of resources that enables lexicogrammatical units to be expanded with other units of the same type, producing complexes. The choice of complexing is available at all lexicogrammatical ranks; that is a morpheme, word, group or clause may be expanded by other units at the same rank to create a serial structure.

At clause rank, complexing enables experiential figures to be expanded into sequences of actions, significations and relations. COMPLEXITY is thus a complementary resource to TRANSITIVITY in the Western Desert language's construal of reality: one construes experience as configurations of people, things, qualities, processes and relations; the other construes experience as unfolding sequences of such figures. The experiential and logical perspectives on experience together comprise the ideational metafunction of the language. The ideational metafunction realises fields of social action as processes and relations that involve people, things and qualities, unfolding serially in time and space.

The lexicogrammatical structures that realise the complementary construals of experiential and logical meanings are orbital and serial respectively, as illustrated in Chapter 2, and reproduced below as Figure 6.1.

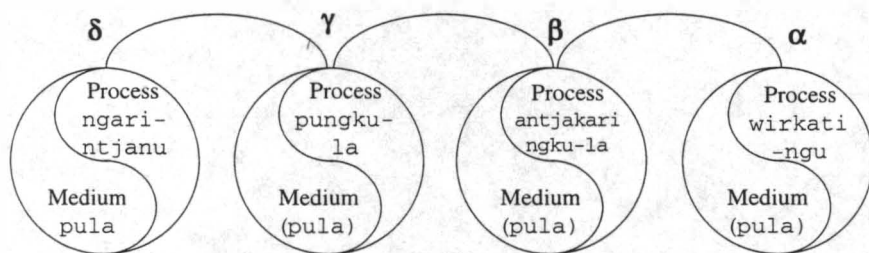


Figure 6.1: Orbital and serial structures realising experiential and logical meanings

6.1.1 INTERDEPENDENCY TYPE, TAXIS and RECURSION

There are three general sets of options available for clause complexing. These include options in:

- i) INTERDEPENDENCY TYPE: most generally between expanding or projecting types;

- ii) TAXIS: paratactic or hypotactic relations (including the traditional formal categories of 'coordinate' or 'subordinate' sentences);
- iii) RECURSION: the choice between complexing just once or recursively.

6.1.1.1 *Review of clause complexing to date*

The complementarity between orbital and serial perspectives on experience has been exemplified in text analyses throughout the survey to this point. In general each line of the text analyses has been devoted to a single clause, and the texts have unfolded as series of clause complexes. Where relevant, the type of relation between clauses has been indicated to the left of each line, including the symbols (+) for addition, (") for projected locutions, and (') for projected ideas. So far we have noted two simultaneous sets of options for clause complexing: projection or expansion and parataxis or hypotaxis.

6.1.1.1a *Projection*

In projection there is an option of parataxis or hypotaxis.

6.1.1.1a (1) *Paratactic projection*

Paratactic relations between the projecting and a finite projected clause are indicated by the symbol "2, example [5:11'].

[5:11']

- 1 *ka watja-nu*
 and did command
 Then one sister told the other,
- "2 *wanyu wili mantji-la*
 "please' long stick fetch-!"
 "Please fetch a long stick."

6.1.1.1a (2) *Hypotactic projection*

Hypotactic relations between the projecting and a non-finite projection are indicated by the symbol "β example [5:60'].

[5:60']

- α *paluru tjana panya pitja-la tjapi-ningi*
 they3 coming were asking
 They were coming and asking
- "β *Lands Trust tjungku-ntjikitja-ngku*
 Lands Trust to put-SM
 to set up a Lands Trust.

6.1.1.1b Expansion

Where the relation is not projecting, but simply expanding, we have also seen the same alternatives in TAXIS.

6.1.1.1b (1) Paratactic expansion

One type of paratactic expansion is addition [6:1], indicated by +2:

[6:1]

- | | | | | |
|----|--|------------------|---------------------|------------------------|
| 1 | <i>kuka kanyila-ku</i> | <i>tati-nu</i> | <i>puli-ngka</i> | |
| | for wallaby game | (they) did climb | up the hills | |
| | For wallabies, that is, they climbed up in the hills, | | | |
| +2 | <i>munu</i> | <i>pula</i> | <i>kuka kanyila</i> | <i>kati-ngu</i> |
| | and-SM | they 2 | wallaby game | did bring back |
| | ...and they brought back wallaby meat to the camp. | | | |
| +3 | <i>ka</i> | <i>pula</i> | <i>mai-ku</i> | <i>tjaru-ukali-ngu</i> |
| | and-SW | they 2 | for food | did descend down |
| | Meanwhile the other two went down to the plain, looking for vegetable foods, | | | |
| +4 | <i>munu</i> | <i>pula</i> | <i>mai ili</i> | <i>ura-ningi</i> |
| | and-SM | they 2 | fig food | were collecting |
| | and were collecting wild figs. | | | |

6.1.1.1b (2) Hypotactic expansion

One type of hypotactic expansion is manner [6:2], indicated by xβ:

[6:2]

- | | | | | |
|----|---|-----------------|------------------------|---|
| xβ | <i>ka</i> | <i>nganana</i> | <i>tungunpungku-la</i> | |
| | and | we | disagreeing-SM | |
| | ...and we disagreeing, | | | |
| α | <i>pulkara</i> | <i>tjana-la</i> | <i>wangka-ngi</i> | <i>piranpa tjuta-ngka nganampa manta-ku</i> |
| | strongly | to them | were talking | to the whites for our land |
| | were talking strongly to them, to the whites, for our land. | | | |

6.1.1.2 The meaning of complexity

TRANSITIVITY and COMPLEXITY together constitute the ideational meaning potential of the clause in Western Desert, referred to as **experiential** on the one hand and **logical** on the other. As we have seen in Chapter 5 there is considerable variation in the types of experiential meanings that can be expressed in orbital structures, and the same is true of logical meanings in serial structures. Halliday (1994a:216) describes the semantic potential of clause complexing as follows:

We shall interpret the relations between clauses in terms of the 'logical' component of the language system: the functional-semantic relations that make up the logic of natural language. There are two systemic dimensions in the interpretation. One is the system of interdependency, or 'tactic' system, parataxis and hypotaxis, which is general to all

complexes - word, group, phrase, clause alike. The other is the logico-semantic system of expansion and projection, which is specifically an interclausal relation - or rather, a relation between processes, usually (but not always) expressed in the grammar as a complex of clauses.

So the general options in complexity are comparable for Western Desert and English, although they begin to diverge as we explore the systems of TAXIS and INTERDEPENDENCY TYPE in more delicacy.

6.1.1.3 *Complexity between and within clauses*

An immediately striking difference between the languages is the fondness in Western Desert for intra-clausal complexing of processes that may not be clearly distinguished from inter-clause complexing, as in lines 1, 3 and 4 of example [6:3] below.¹ This indeterminacy in rank is addressed below in §6.5.1.

[6:3]

- 1 *munu pula mai β kati-ra α u-ngangi wati kutjara*
 and they₂ food bringing, were giving to the two men
 Then they brought the vegetable foods back and shared them with the two men.
- 2 *ngura-ngka alatjitu -ya nyina-ngi*
 right at that place they were sitting
 It was right at that place (Piltati) that they were living.
- +3 *munu kuka β wiya-ringku-la α ailuru-ri-ngu*
 and game finishing a drought began
 Then all the game was finished as a drought began.
- 4 *putu β tjawa-ra α pitja-ngi*
 unable digging, were coming back
 Unable to dig anything up, the women were coming back to camp empty handed.

6.1.1.4 *Recursive complexity*

The third set of options within COMPLEXITY, that of RECURSION, is also available for both parataxis and hypotaxis. Additive relations are frequently selected recursively, as in example [6:1] above, to recount experience as sequences of discrete steps added one after another. We also noted in Chapter 1 Text [1:3] an example of recursive hypotaxis, that was described as construing “a complex event involving a chain of connected processes that are partially discrete, but oriented towards completion in the final finite process”:

[1:3']

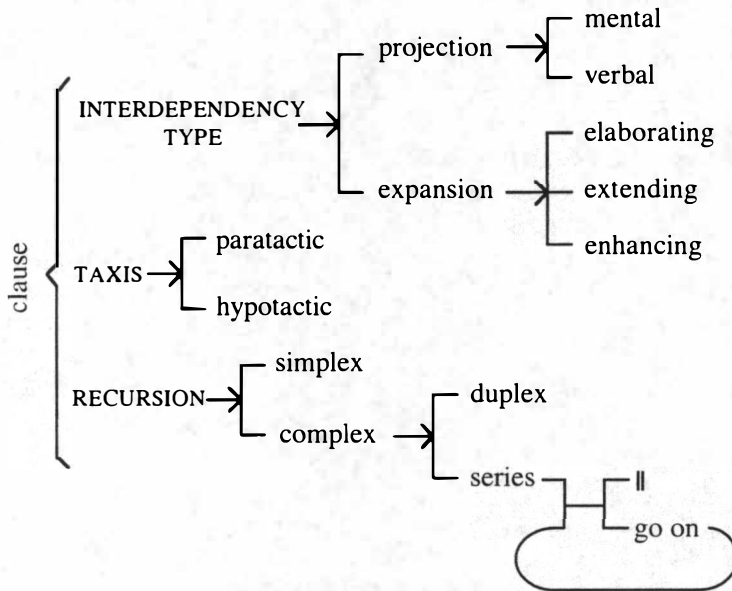
- +3 δ *munu pula ngarin-tjanu-ngku*
 and they₂ after sleeping
 Then after sleeping,

¹ See Van Valin (1993, 1997), Dixon (1980) and Goddard (1985) (reviewed in §A.5.4 below), for nuclear interpretations of intra-clausal and inter-clause complexing. These differ from the modular approach of SFL that I have used here, which treats these structures as complexes at different ranks, i.e. verb complexes and clause complexes respectively.

- γ *pungku-la*
striking
hunting some more,
- β *antjakaringku-la*
camping out
and camping out again,
- α *wirkati-ngu*
did finally arrive
they finally arrived.

6.1.1.5 General options in COMPLEXITY

To sum up, the options available for complexing clauses in Western Desert include projection or expansion, parataxis or hypotaxis and complexing once or recursively. These general options are set out in System 6.1.



System 6.1: General options in COMPLEXITY

System 6.1 simplifies the presentation of these systems, but not all the options in the three systems are equally available for co-selection. Some are more probable, such as the option of parataxis with projected saying and perceiving, i.e. quoted wording, which, as we saw in §5.3 above, is far more likely than hypotaxis, i.e. reported meaning. On the other hand we also saw that for mental reaction, only hypotaxis is available. Likewise serial recursion is not an option for signifying processes; we do not find examples like the English 'he told her to tell them to think about it' (as recursive agency is also not an option in Western Desert), rather the projecting relation forms a 'duplex' of signifying and projected clauses. Furthermore expansion type and taxis are not freely combinable; elaboration and extension are paratactic relations, while enhancement is hypotactic. Again this contrasts with English in which

expansion and taxis are freely combinable, although the probabilities are skewed towards parataxis for elaboration and extension, and hypotaxis for enhancement (Nesbitt & Plum 1988).

6.1.2 *Structural potentials*

6.1.2.1 *Recursive potential*

TAXIS and INTERDEPENDENCY TYPE are multivariate features of clause complexity.

- i) TAXIS is realised by the potentially differing status of clauses in the complex: clauses of the same status are related by parataxis, while clauses of unequal status are related by hypotaxis.
- ii) INTERDEPENDENCY TYPE is realised by variation in the types of logico-semantic relation between clauses, generally projection or expansion but including many subcategories.

Options in RECURSION on the other hand are possible because of the univariate nature of complexing: no matter how units in a complex vary in TAXIS and INTERDEPENDENCY TYPE, they can be complexed because on another dimension they are also the same.

Logical meanings thus differ from experiential ones, in the type of variation in the structures that realise them. Experiential structures are purely multivariate. The relationships between experiential clause elements, such as Medium, Process, Place and so on, are realised by contrasts in word class and inflection, e.g. verbal vs nominal group, or NEUTRAL vs LOCATIVE inflection, so they can be positioned in any order in a clause, forming orbital structures. Logical structures on the other hand are univariate; that is the relationships between their units are realised partly by similarity and contiguity (by their position next to each other in a series). In other words, complex structures are inherently sequential; the expanding unit is contiguous with the unit it expands, either following or preceding it. This type of structure is defined by Martin (1992) as serial, since it is not only sequential but also potentially recursive. A unit may function on its own as a simplex, together with one other unit in a duplex (terms from Matthiessen 1995), or with a sequence of units in a series, choices represented diagrammatically in Figure 6.2.

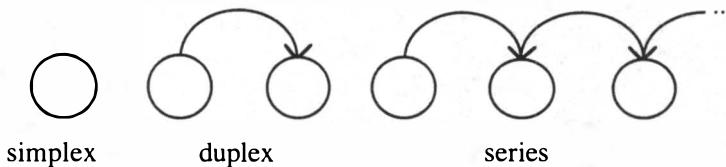


Figure 6.2: Recursive structure potentials

However as we have noted above, these options are not freely available for all types of clause complexes. In particular, projecting relations are inherently duplexing in Western Desert.

6.1.2.2 Nesting potential

While recursive projection is not an option in Western Desert, what we do find is **nesting** of one type of complex within another (see Halliday 1994a:217–218, on nesting potential in English). For example projecting complexes are nested within additive sequences, as in the following extract from a recount of verbal exchanges in a meeting [6:4]. The resource of nesting enables the verbal exchange to be represented as an activity sequence. The text begins with an action clause orienting the exchange in time and genre, i.e. ‘in the morning the meeting started’. Each following step is a verbal or mental process clause that projects a locution or idea. The resources of personal reference and conjunctive reference enable the exchange to be switched back and forth between interactants, in clauses +2, 3, +4 and +5.

[6:4]

- 1 *mungawinki-lta* *meetingi* *starta-ri-ngu*
 in the morning at that meeting started
 In the morning the meeting started,
- +2.1 *ka watja-nu*
 and said
 and (the leader) said,
- 2"2 β *meeting panya* *run-amila-ntjaku*
 this meeting to run,
 “In order to run this meeting,
- 2"2 α *ngana-nya* *nyura* *Chairman* *tjungku-ntjikitja mukuri-nganyi*
 whom? you₃ as Chairman want to put
 “who do you want to put as Chairman?”
- 3.1 *pala tjana*
 those ones (replied)
 They replied,
- 3."2 *Kuki-nya*
 Kuki
 “Kuki!”
- +4.1 *ka paluru tjapi-nu*
 and he did ask
 Then he asked,
- 4"2 *Council nyangatja* *nyura* *nyaa* *wangka-nyi*
 this Council you₃ what? are calling
 “What are you calling this council?”
- +5.1 *ka ngayulu watja-nu*
 and I told
 So I said,
- 5"2 *Pitjantjatjara Council*
 Pitjantjatjara Council
- =6 α *panya* *ngayulu kuli-ni...* *kampa kutjupara pitja-ntja*
 that is I’m thinking coming from another side
 because I was thinking, coming in from the other side,

- 6' β *Pitjantjatjara Council tjungkun-tjikitja*
to put Pitjantjatjara Council
to give it the name Pitjantjatjara Council.

Identification of interactants begins in +2 with the Sayer implicitly presumed (in fact in this historical recount this particular person was never explicitly identified as he had died tragically in 1985). In clause 3 another Sayer is identified as the plural *pala tjana*, a bridging reference to 'the meeting' in clause 1. In +4 the Sayer switches back to the first speaker, and in +5 it is switched again to the narrator of the story. At this point the logico-semantic resource of elaboration is used for the narrator to intrude his own thoughts into the recount, in the form of a mental process that clarifies his previous move in the exchange.

So the overall logogenesis of the text unfolds as an activity sequence, in which each activity is a verbal or mental process. What the participants in these activities say or think is then nested in each step as a projection. This pattern is represented diagrammatically in Figure 6.3 below. Each step in the sequence is a bubble, logically related to the next step by a recursive series of arrows. Within each step, projections are nested within speech and thought bubbles.

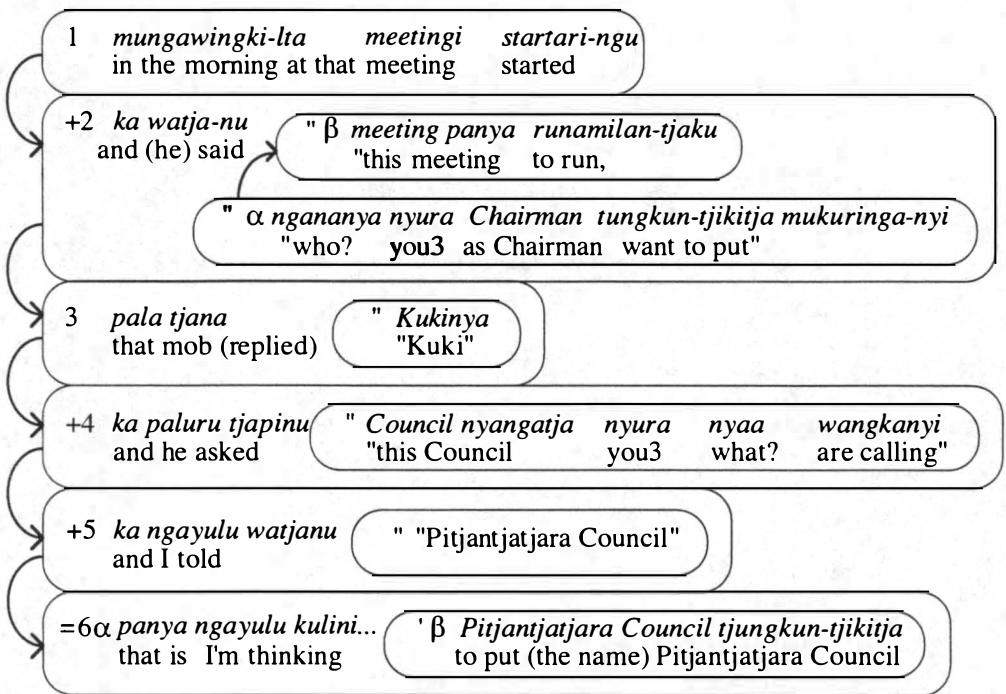


Figure 6.3: Nesting of projection in dialogue

In step +2, an enhancing clause complex is also nested within the projection, illustrated like a Russian egg in Figure 6.4 below.

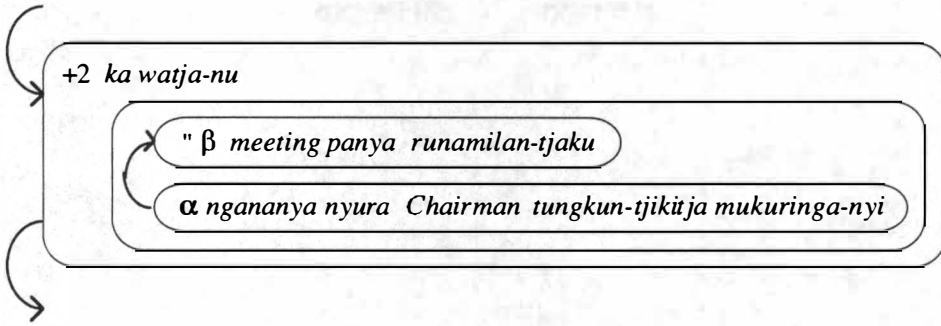


Figure 6.4: Nesting of expansion in projection

6.1.2.3 Progressive and regressive sequencing

The arrows I have used to represent the activity sequence in Figure 6.3 each point forward to the next step, accumulating events as the story unfolds in parataxis. However, the hypotactic complex nested within the projection in +2 points the other way, with the β Purpose 'to run the meeting' preceding its α Action 'putting a Chairman'. (Notice that this regressive sequence is also the case with the hypotactic verb complex in 2" β *tjungku-ntjikitja α mukuringa-nyi*, whereas the hypotactic clause sequence in =6 is again progressive.)

In other words, paratactic complexes are restricted to the sequence $1 \wedge 2$, whether they are expanding or projecting. In projection, the signifying clause always comes first, followed by its quoted projection. In expansion, paratactic clauses are either added to each other to construct an activity sequence, or else the second clause elaborates the first, specifying or clarifying it in some way.

Hypotactic clause complexes on the other hand, enable the text sequence to be reversed, so that effect may precede cause, or the projection may precede the signifying process (see Martin 1988 on hypotactic recursive systems in English). This enables the dependent clause to be either the Theme or New element of the clause complex, in the same way as circumstances (to which they are closely related) can be either Theme or New of a clause.

In the case of +2, the speaker chooses to thematise the purpose 'to run the meeting', to contextualise his question for his listeners 'who do you want to put as Chairman?'. The context is that the Council being discussed in this meeting is a new concept for many of his listeners, so his rhetorical strategy is to explain before proposing. On the other hand, in =6, the α mental clause is thematic because it is another step in the activity sequence of verbal clauses, and their Sayers who are identified thematically (the difference being that =6 is a mental clause elaborating the preceding verbal one).

In sum, paratactic sequences unfold iconically in progression, for example:

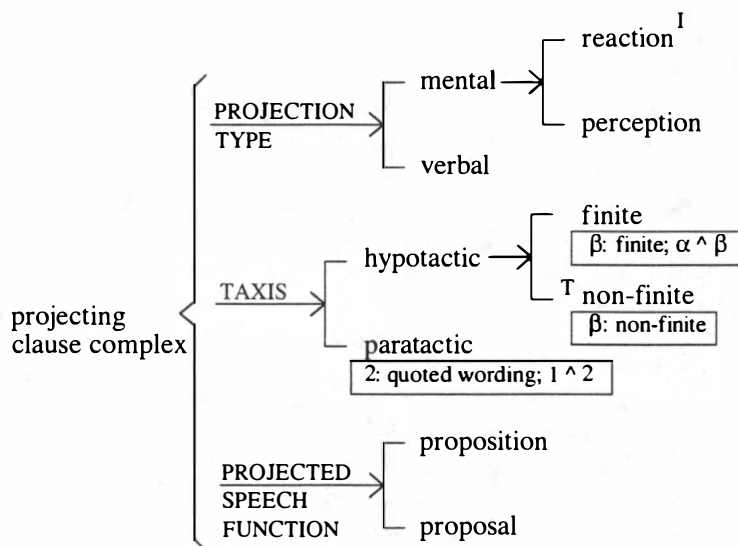
- i) in time, as one event is added to another,
- ii) in generality, as one concept is elaborated by another more specific one,
- iii) in abstraction, as a signifying activity is reconstrued as projected wording and meaning.

Because hypotactic sequences are multivariate in one dimension, i.e. realised by a difference in status, their sequence can be either progressive or regressive, opening up the potential for varying textual organisation.

I will now turn to survey the variety of logico-semantic types available in clause complexing. I will begin with a brief survey of projecting types, since much of this potential was covered in Chapter 5 (§5.3) on SIGNIFICATION. This will be followed by a more extensive survey of expansion, and finally by a brief discussion of complexing at other ranks.

6.2 PROJECTION

From the perspective of their potential for clause complexing, projections of signifying processes have the following options. Projections of verbal process and mental perception may be either paratactic or hypotactic. If hypotactic they may be either finite or non-finite, and their speech function may be either a proposition or a proposal. As far as probabilities are concerned, paratactic projection is far more likely, and finite hypotactic projection is more likely than non-finite. For mental reaction, however, the opposite is the case; projections of reaction processes are always non-finite and irrealis. These options are set out in System 6.2.



System 6.2: Complexing potential of projection

Choices in TAXIS are exemplified below for both mental and verbal projection, beginning with parataxis, followed by hypotaxis with finite β , and then non-finite β .

6.2.1 Paratactic projection

Both mental and verbal projections may be paratactic, with their projections quoting either propositions or proposals. Both represent the projection as a quote of the idea or locution, including its wording and its intonation. In the following examples, tone contours are indicated graphically above the tonic element. As discussed in §3.4.1, the projecting clause is normally a pre-tonic element within the tone group; it is not spoken on a separate tone. Where the projection includes more than one tone group, the boundary is indicated by a double slash //.

6.2.1.1 Verbal projections

Direct speech is the most frequent choice in verbal projections; it enables the speaker to reproduce the intonation, rhythm and ‘timbre’ of the quoted speech act, opening up a large potential for expressing attitude towards both the Sayer and the locution.

6.2.1.1a Propositions

Projected propositions may be either questions or statements. In example [6:5] the first (implicit) Sayer asks a *nya*-question *ngana-nya* ‘whom?’ with the *nya*-interrogative Tone 5, and the second Sayer *pala tjana* reply with an elliptical statement *Kuki-nya* on declarative Tone 1.

[6:5]

1.1 *ka watja-nu*
and (he) said
And (the leader) said,

1”2 β *meeting panya run-amila-ntjaku*
this meeting to run,
“In order to run this meeting,

1”2 α *ngana-nya nyura Chairman tjungku-ntjikitja mukuringa-nyi*
whom? you³ as Chairman want to put
“who do you want to put as Chairman?”

2.1 *pala tjana*
those ones (replied)
They replied,

2.”2 *Kuki-nya*
Kuki
“Kuki!”

6.2.1.1b Proposals

Exchange [5:11'] is an example of a projected command on the imperative Tone 5.

[5:11']

1 *ka watja-nu*
and did command
Then one sister told the other,

“2 *wanyu wili mantji-la*
‘please’ long stick fetch-!
“Please fetch a long stick.”

6.2.1.2 Mental projections

Mental perception also most commonly quotes the wording and intonation of either propositions or proposals, and for the same discourse reasons as verbal projections do.

6.2.1.2a Propositions

In example [6:6] the quoted proposition is a statement *palya-nti* on Tone 1, followed by a conditional *nya*-question, spoken on Tone 4 and Tone 5.

[6:6]

1 *ka pula kuli-nu*
 and they did think
 So they thought,

“2 *palya-nti // ka -li kuwari-mpa putu nyaku-la-mpa // yaltjiring-ku -li*
 OK-maybe so we2 now-maybe unable seeing-maybe what will do? we2
 “Never mind. So now, if we can’t see them, what will we do?”

Example [6:7] on the other hand includes both a *nya*-question on Tone 5, and a stressed statement in response on Tone 1+, construing conscious processing exactly like a social exchange, on the model of the dialogue in example [6:4] above.

[6:7]

1 *munu paluru nya-ngu*
 and s/he did see
 And she saw,

“2 *nyaa nyangatja pupa-nyi // wanampi-purunpa*
 what? this is crouching wanampi serpent-like
 “What is crouching here? It’s like a *wanampi* serpent.”

6.2.1.2b Proposals

Example [6:8] below begins in 1 with a nominal phenomenon *nyanga palu-nya piranpa-ku idea pitja-ntja* ‘this here white man’s idea that’s come’ and continues in 2’2 with a projected mental suggestion on Tone 5 *uti nganana kulil-ku* ‘clearly we should think’.

[6:8]

1 *ka la pala palu-la kuli-ni nyanga palu-nya piranpa-ku idea pitja-ntja*
 and we3 at that there are thinking this here white’s idea [[that’s come]]
 And at that we thought, “This is a whites’ idea that’s come.”

+2.1 *ka la kuli-ni*
 and we3 are thinking
 So we thought,

2’2 *uti nganana kulil-ku*
 clearly we3 will think
 “Clearly we should decide.”

Note that the suggestion in 2'2 is modalised by the use of future tense *kulil-ku* rather than imperative *kulin-ma*, but Tone 5 still expresses a proposal.

6.2.2 Hypotactic projection

Hypotactic projected speech functions may also be propositions or proposals, and may be realised by either finite or non-finite clauses.

6.2.2.1 Verbal projections

6.2.2.1a Propositions

Hypotactic projections of propositions are normally finite. This reports the subject matter of what was said, indicated by the anaphoric conjunction *panya*, and with person and time reference related to the local situation, as well as the intonation. This is exemplified in [6:9], with a reported *nya*-question, in which the person reference is to the addressee *nyuntu* 'you'. In the original question that it reports, the projected Medium would have been a non-interactant (i.e. 'she asked me, "why didn't he come?").

[6:9]

α *paluru ngayu-nya tjapi-nu*
 s/he me did ask
 She asked me

" β *panya nyuntu nyaa-ku pitjantja-wiya*
 that you what for? not coming
 ...why you didn't come.

6.2.2.1b Proposals

Proposals are reported by non-finite verbal projections. This is illustrated here for a command [6:10], a request [6:11] and an offer [6:12].

[6:10]

α *paluru ngayu-nya watja-nu*
 he me did tell
 He told me

" β *ngura-ngka nyina-ntjaku*
 in camp to sit-SW
 to stay at home.

[6:11]

α *paluru tjana panya pitja-la tjapi-ningi*
 those they that coming, were asking
 Those ones were coming and asking

" β *Lands Trust tjungku-ntjikitja-ngku*
 Lands Trust to put-SM
 to create a Lands Trust.

[6:12]

α *tjana* *kalku-ningi* *meeting nyara palu-la* *nyaa*
 they³ were promising at that yon meeting what?
 They were promising at that meeting


" β 1 *panya* *motorcar* *mantji-ntjaku* *homeland-aku*
 that motorcars to get-SW for homelands
 to get vehicles for the homelands,


" β =2 *tank munu windmill* *tjungku-ntjaku*
 tanks and windmills to set up-SW
 and to set up tanks and windmills.

6.2.2.1c Imperative verbal projections

Where the projecting clause is imperative, projected verbal commands are also realised in imperative mood, bound by the switch Medium conjunction *ka*. Like finite bound propositions, the person reference is also dependent on the interpersonal context of the projecting clause, e.g. example [6:13] *ka-ni money u-wa* 'that they give me money'.

[6:13]

α  *DAA* *ngatji-la*
 DAA beg!
 Beg the Department of Aboriginal Affairs

" β  *ka* *-ni* *money* *u-wa*
 that me money give!
 that they give me money.

6.2.2.2 Mental projections

6.2.2.2a Perception

Hypotactic projected perceptions are far less frequent in discourse than paratactic perceptions. Like verbal processes, mental perception can project finite dependent clauses, and again the person and time reference is relative to the speaking situation rather than the projecting clause. This is exemplified for a projected relation in [6:14] and a projected verbal clause in [6:15].

[6:14]

α *ka-la* *kuli-ningi*
 And we were thinking

' β *panya* *nganana* *tjinguru* *wiya*
 that we³ maybe not
 that we might not have (something we needed).

[6:15]

- α *panya palulanguru-lta* *ngayulu* *kuli-ningi*
 at that there I was thinking
 At that point I thought
- ' $\beta\alpha$ *panya ti-tji-tapalyu-ngku* *pitjala wangka-ngi*
 that DCW was coming and asking
 that DCW was coming and asking
- ' $\beta\beta$ *Lands Trust nganana-nya* *ungku-ntjikitja-ngku*
 Lands Trust to us to give
 to give us a Lands Trust.

(Note the enhancing complex nested in the projection ' $\beta\alpha$ ' $\beta\beta$)

Perception is also infrequently realised by a non-finite dependent clause. Hypotactic 'seeing' is realised by realis aspect and switch Medium on the β process [6:16].

[6:16]

- α *liru-lu* *nya-ngu*
 snake did see
 The snake saw
- ' β *punu panya irati* *ngari-ra pinpapinpa-nyangka*
 that sacred stick lying flashing-SW
 that sacred stick lying there flashing.

Realis non-finite mental projections such as example [6:16] above are treated as embedded in English, i.e. snake saw that sacred stick [[lying flashing]], since they are proportional to finite embedded projections '[[which was lying flashing]]'. However I have interpreted these realis non-finite projections in Western Desert as hypotactic, since they are proportional to irrealis non-finite projections, as in example [6:17] below.

In example [6:17] below, reported 'thinking' is realised by irrealis aspect and switch Medium.

[6:17]

- α *munu -na kuli-ni*
 and I am thinking
 And I thought
- ' $\beta\beta$ *tjinguru meeting nyangatja* *nyanga-ngka* *wangka-ra*
 maybe this meeting here having talked-SM
 maybe having talked here in this meeting
- ' $\beta\alpha$ *wiya-ringku-ntjaku*
 to finish-SW
 that it was finished.

(Note that the nested enhancing complex in example [6:17] is regressive in sequence ' $\beta\beta$ ' $\beta\alpha$.)

6.2.2.2b Reaction and intention

Projected reactions construe the phenomenon that a Sender is reacting to an irrealis event, e.g. liking, learning, fearing [6:18].

[6:18]

α *ngayulu* *nguluringa-nyi*
 I am fearing
 I'm afraid

β *puli-ngka iti-ngka* *ngari-ntjaku*
 near the hills to sleep-SW
 to sleep near the hills.

Projected desires and intentions realise subjective orientations to inclination or obligation. Example [6:19] illustrates desire with the desiderative process *mukuringanyi* and example [6:20] intention with *kulini*.

[6:19]

β *palu* *ngayulu* *piruku* *nintiringku-ntjikitja*
 but I more to learn-SM

α *mukuringa-nyi*
 am wanting
 But I wanted to learn more.

[6:20]

α *ngayulu* *kuli-ni*
 I am thinking
 I was considering

β *ini kutjupa* *tjungku-ntjikitja*
 name another to put-SM
 to put another name.

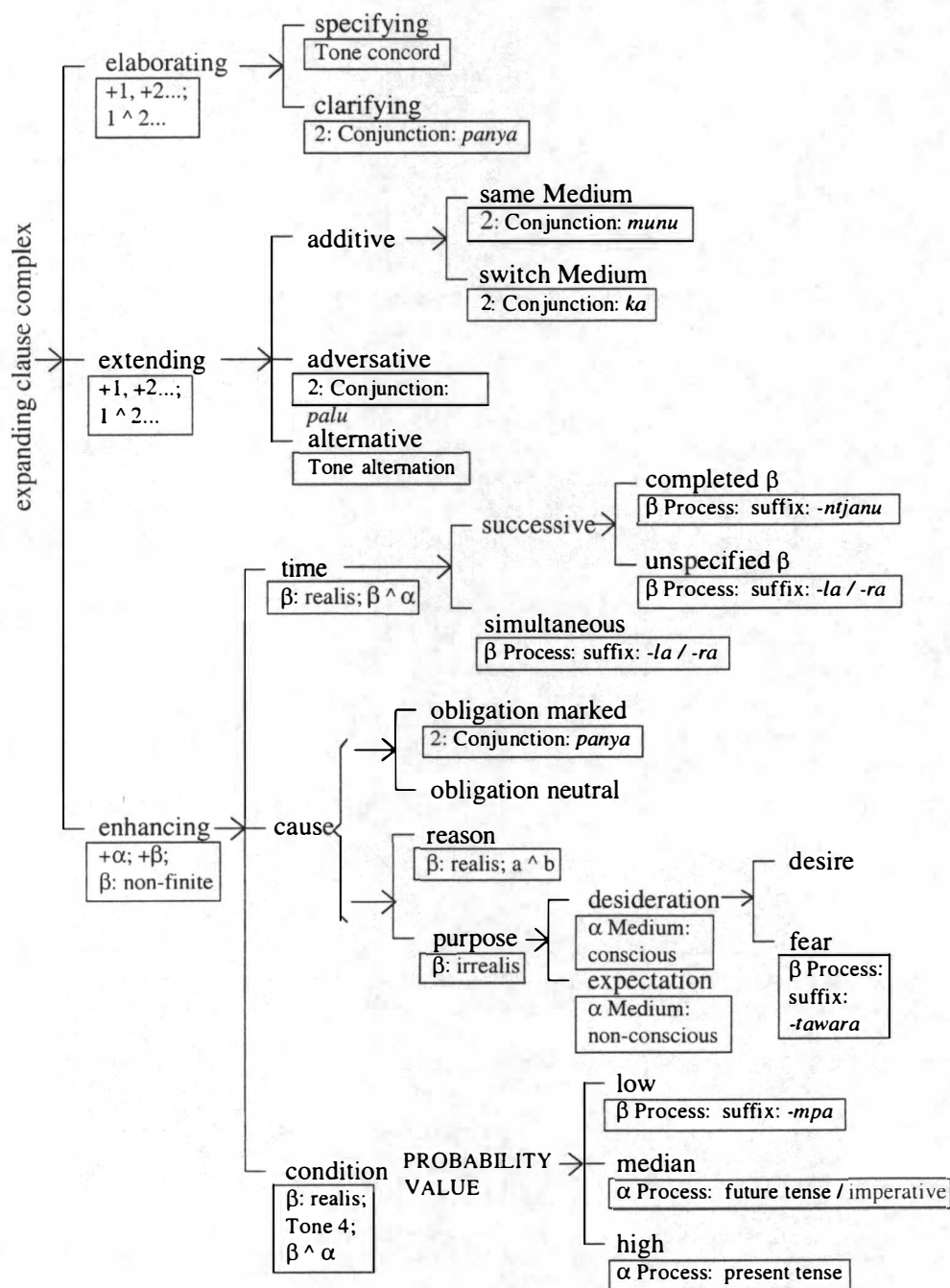
6.3 EXPANSION

There are three general categories of expansion: elaborating, extending and enhancing. Halliday (1994a:220) describes these logico-semantic relations as follows.

- i) In elaborating relations, "one clause expands another by elaborating on it (or some portion of it); restating it in other words, specifying in greater detail, commenting or exemplifying".
- ii) In extending relations, "one clause expands another by extending beyond it: adding some new element, giving an exception to it, or offering an alternative".
- iii) In enhancing relations, "one clause expands another by embellishing around it: qualifying it with some circumstantial feature of time, place, cause or condition".

As discussed in §6.1.1.5 above, extending and elaborating expansions are all paratactic in Western Desert, while enhancing expansions are hypotactic. Paratactic relations of elaboration and extension enable a primary clause to be expanded with one or more secondary clauses that either specify or clarify it (elaboration), or add, oppose or alternate secondary events or relations (extension). On the other hand hypotaxis enables a choice in aspect, and for the β clause to either follow or precede the α clause. These options expand the potential to realise more delicate types of enhancing relations, including time, reason,

purpose or condition. In both parataxis and hypotaxis, tone is also employed as a realisational strategy for specifying expansion type. These options in EXPANSION TYPE are set out in System 6.3.

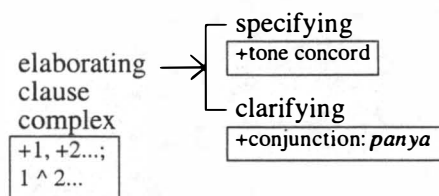


System 6.3: Options in EXPANSION TYPE

The discussion will begin with elaboration, followed by extension and then enhancement.

6.3.1 Elaboration

There are two sub-types of elaboration in Western Desert, in which the second clause either specifies or clarifies the meaning of the first. Options and their realisations are set out in System 6.4.



System 6.4: Elaborating clause complexes

6.3.1.1 Specifying

In specifying complexes, all or part of a clause is restated in more specific terms. We have already touched on this feature in the context of INFORMATION DISTRIBUTION in §3.4.1, in which we looked at late New elements that specified the identity of clause elements. However this is not restricted to single clause constituents, since a whole clause may be specified by another clause or part of it.²

The specifying relation is realised by tone concord; the elaborating clause has the same tone contour as the primary clause it follows, with the tonic focus falling on the element(s) being specified. Most frequently in the specifying clause, the element being specified is realised explicitly, while some or all of the other elements of the primary clause are presumed. The limiting case of this is where only the element being specified is present, in which case it can be treated as a clause constituent.

² Heath (1984:497–498) notes this specifying pattern in Nunggubuyu (NE Arnhem Land), although his word/morpheme rank descriptive perspective limits his recognition of circumstantial clause elements such as Quality and Role.

Nadj [adjectival nouns], except in Nc-Nadj compounds [nominal groups], are formally autonomous units which may be closely juxtaposed to a nuclear noun but are best viewed as separate appositional units. ...Essentially similar remarks can be made about putative “NP” structures involving a nuclear noun plus a Relative noun (including genitive) or a Relative clause. ...such Relative nouns or clauses need not be directly adjacent to the head noun (which indeed may be merely covert [i.e. implicitly presumed DR]); instead they are often separated from it by other intervening constituents.

Heath is attempting to classify three distinct features here at group rank, each of which elaborates one or more elements of a clause. One type is specifying clause complexes exemplified in [6:21] to [6:24], where all but the specifying elements may be ellipsed from the secondary clause. Another type is a clause constituent, the circumstances of Quality, Role and Comparison, and another is a nominal group constituent, a Classifier or Qualifier, discussed above in the context of late New in §3.4.1.2. As discussed in fn. 7, Chapter 4, Goddard (1992) has a related descriptive problem for Yankunytjatjara, classifying adverbs realising circumstances of Quality as ‘active adjectives’, because like nominal elements they inflect for the effectivity of the clause.

6.3.1.1a Specifying a place

The opening lines of Text [3:5], re-presented below as example [6:21], include two examples of elaboration. Clause 2 specifies the Place of clause 1 *manta nyanga-ngka* 'in this land', as *manta wingki-ngka* 'in all lands'.

[6:21]

1 *anangu tjuta nyina-ngi manta nyanga-ngka*
 many people were sitting in this land
 People were living in this land.

=2 *manta wingki-ngka kunyu nyina-ngi anangu tjuta*
 in all lands it's said were sitting many people
 In all the lands, it's said, the people were living.

6.3.1.1b Specifying a possession

In the next elaborating complex in example [6:21], clause 4 specifies the possessive relation of clause +3 'having useless fire, with black brands', as accompaniment, 'living with useless brands'.

[6:21] (continued)

+3 *munu-ya paluru tjana waru kurakura kanyi-ningi tili maru-tjara*
 and-they those ones useless fire were having with black brands
 But at that time those people had useless fire, with black firebrands.

=4 *tili maru-tjara kunyu nyina-ngi*
 with black brands it's said were sitting
 With black firebrands, it's said they were living.

6.3.1.1c Specifying a quality

In the elaborating clause =2 in example [6:22] below, both Actor *nganana* 'we' and Source *government* are presumed, and the tonic focus is repeated on the specifying circumstantial element [Quality] 'carefully'.

[6:22]

1 *nganana government-ala kuli-ningi rawa-ngku*
 we to the government were listening continuously
 We were listening to the government continuously,

=2 *purkara-ngku kuli-ningi*
 carefully were listening
 carefully listening.

6.3.1.1d *Specifying an attribute*

In example [6:23] below, the Attribute *ngurpa* 'ignorant' is specified by the whole of clause 2 as *putu nguwanpa kuli-ni* 'couldn't quite understand', with the concordant tonic on the inability particle *putu*.

- [6:23]
- | | | | | |
|---|-----------------------------|----------------|--------------|---------------|
| 1 | <i>ka</i> | <i>ngayulu</i> | <i>panya</i> | <i>ngurpa</i> |
| | and I | | that | ignorant |
| | And I was ignorant of that, | | | |
-
- | | | | |
|----|----------------------------|-----------------|------------------|
| =2 | <i>putu</i> | <i>nguwanpa</i> | <i>kuli-ni</i> |
| | unable | nearly | am understanding |
| | couldn't quite understand. | | |

6.3.1.1e *Specifying a process*

In example [6:24] below, the process *para-tju-nanyi* 'putting around' is specified as *anga-tju-nanyi* 'blocking off', and the rest of the clause is presumed.

- [6:24]
- | | | | |
|---|--|--------------|-----------------------|
| 1 | <i>tjinguru</i> | <i>fence</i> | <i>para-tju-nanyi</i> |
| | maybe | fence | are putting around |
| | Maybe they're putting a fence around the land, | | |
-
- | | |
|----|-----------------------|
| =2 | <i>anga-tju-nanyi</i> |
| | are blocking off |
| | blocking it off. |

6.3.1.1f *Specifying a role*

In example [6:25] the circumstance of Role *walytja-ngku* 'as self' (i.e. 'themselves') is specified as *walytja-ngku alatjitu* 'entirely on their own', and both Carrier and Process are presumed.

- [6:25]
- | | | | | |
|---|------------------------------------|-----------------|---------------------|-----------------|
| 1 | <i>nyara</i> | <i>tjana-ya</i> | <i>walytja-ngku</i> | <i>kanyi-ni</i> |
| | yonder | they-they | as self | are holding |
| | Those people manage it themselves, | | | |
-
- | | | |
|----|---------------------------------------|-----------------|
| =2 | <i>walytja-ngku</i> | <i>alatjitu</i> |
| | as family | complete |
| | they manage it entirely on their own. | |

6.3.1.2 *Clarifying*

Clarifying relations are realised by the anaphoric demonstrative *panya* 'that (is)', functioning as a conjunction. In example [6:26] clause =2 clarifies the purpose of 1, 'to

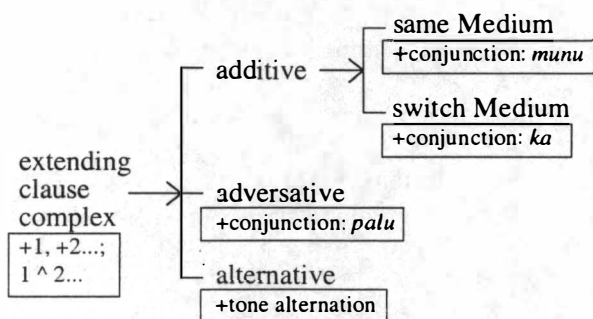
share' that is 'to work in turn'. Clauses =3+4 clarify how this may happen 'that is if other communities have good machines, we're thinking of borrowing them'.

[6:26] clarifying

- 1 *equipment nganana yaltjiyaltji-ngku alpamila-ra ungku-la ungku-ntjaku,*
 equipment we3 how? helping giving to give
 How can we help by sharing equipment?
- =2 *panya ngapartji ngapartji workari-ntjaku community wingki-ngka*
 that is reciprocally to work in every community
 That so that we can work reciprocally in every community.
- =3 *panya tjinguru community kutjupa tjuta-ngku machine panya wiru*
 that maybe various communities such good machines
kanyi-ni
 are having
 That is maybe other communities have such good machines.
- +4 *munu-la ngatji-ntjikitja-ngku kuli-ni*
 and we are thinking of borrowing
 So we are thinking of borrowing them.

6.3.2 Extension

There are three sub-types of extension: additive, adversative and alternative. These options and their realisations are set out in System 6.5.



System 6.5: Extending clause complexes

6.3.2.1 Additive

Addition is probably the most frequent clause complex relation in Western Desert discourse, particularly, but not only, in narrative sequences. It is realised by the conjunctions *munu* and *ka*, which distinguish whether the Medium in the secondary clause is the SAME *munu* or SWITCH *ka* from the Medium of the primary clause.

6.3.2.1a *Adding events in an activity sequence*

Addition may be employed to add events in an activity sequence. Its interpretation may thus be simply a temporal succession of events, but it may also be consequential, as we saw in §3.4.2, illustrated in the third clauses of both examples [6:27] and [6:28] below.

[6:27]

- 1 *ka ya palu-nya putu mantji-ra*
 and they it unable getting
 And they were unable to get it.
- =2 *wati kutjupa tjuta-ngku tjulya-ningi putu*
 various men were snatching unable
 Various men tried but were unable to snatch it.
- +3 *ka Tjilka-ri-ngu*
 and did become tjilka
 So this became the *tjilka*.

[6:28]

- 1 *Watarr-la wirkati-ngu*
 at Watar did finally arrive
 At Watar he finally arrived,
- +2 *munu wani-ngu tili ngura kutjupa-ngka*
 and-SM did throw firestick to other places
 and he cast out firesticks to all other places.
- +3 *ka Watarr-nga waru-kampa-ntja waru-piti*
 and-sw Watarr fire-burn-NOM fire-place
 So Watarr is called Fire-Burning, or Place-of-Fire

6.3.2.1b *Adding relations*

While the additive relations in example [6:28] above are successive (+2) and consequential (+3), addition need not realise temporal relations. Line +3 example [6:29] below exemplifies addition between relational clauses, where the relation is one of contrast between the 'Murputja people' (belonging to the Mann Ranges area) and the 'Malu people' (belonging to the kangaroo Dreaming of the Tomkinson Ranges).

[6:29]

- 1 *uwankara walytja-piti*
 all family
 Everyone is a family.
- =2 *nyanga murputja tjuta*
 these Murputja people
 These are Murputja people,
- +3 *ka tjana malu-nguru*
 and-sw they3 from Malu
 and they are from Malu (Red Kangaroo) Dreaming.

6.3.2.2 Adversative

Adversative extension is realised by the conjunction *palu*, translatable as ‘but’. Its meaning is ‘counter-expectancy’, and is common in the environment of mental projections, that is ‘I thought one thing, but it turned out to be another’. Complexes [6:30] and [6:31] offer two examples of such environments.

[6:30]

- 1 *ka ya alatji kuli-ni tjinguru fence para-tju-nanyi*
 and they thus are thinking maybe fence are putting around
anga-tju-nanyi
 are blocking
 And they were thinking “Maybe they’re putting a fence around it, blocking it off”
- +2 *palu wiya panya paluru tjana fence anga-tju-ngkuntja wiya*
 but not that they fence not blocking off
palya-ntja wiya
 not making
 but that wasn’t it, they weren’t blocking it off with a fence, not building a fence.

[6:31]

- 1 *ngayulu kuli-ni tjinguru nyaa tjukutjuku*
 I am thinking maybe what? little
 I was thinking that maybe this was only a little thing
- +2 *palu watja-nu ngura meeting nyanga mala-ngka piruku ngura ngana-la*
 but did say place after this meeting more at which place
 but he said “a place, after this meeting, what place for the next one”.

6.3.2.3 Alternative

Alternation is translatable in English as ‘or’. It is relatively infrequent in discourse as a clause complex relation, typically associated with questions or low probability. It is realised by alternate tone contours: in both questions [6:32] and statements [6:33], the primary clause is spoken on rising tone, with the alternating one on a falling tone. Tonic focus falls on the element in question.

6.3.2.3a Alternation by tone

[6:32] ———

- 1 *wirka-nu paluru tjana*
 did arrive they
 Have they arrived yet?
- +2 *ngururpa pitja-ni -tu*
 in the middle are coming still
 or are they still coming along?

[6:33]

1 *tjinguru* *ngayulu* *palya* *wangka-nyi*
 maybe I alright am talking
 Maybe what I'm saying is correct

+2 *tjinguru* *wiya*
 maybe not
 or maybe it's not.

6.3.2.3b Alternation by conjunction

It is also common to hear the English conjunction 'or' in alternating clause complexes. By using 'or' it is not essential to indicate the alternating relation by tone alternation; instead the tones can be concordant as in example [6:34] $\gamma 1$ and $\gamma +2$.

6:34]

α *tjana* *starta-ra* *community-nya* *money-lta* *ngaly-u-ngu*
 they starting to communities money at that did give hither
 they started to give the money to the communities,

β *tjara-ntjaku*
 to divide it up-sw

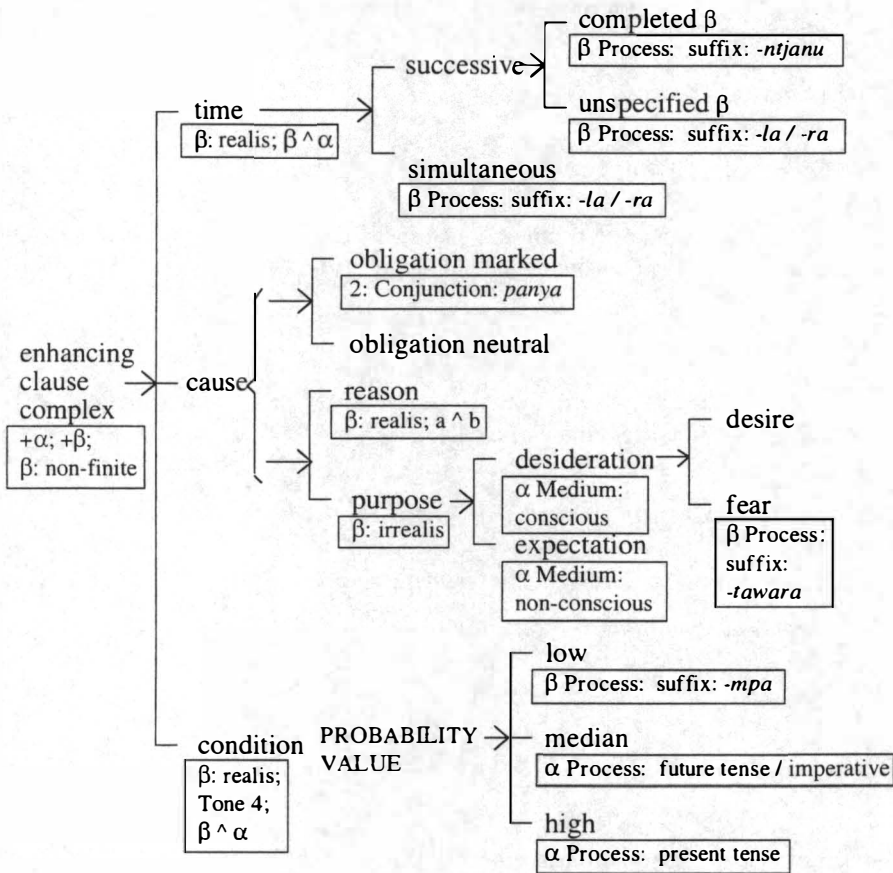
$\gamma 1$ *anangu* *tjuta-ngku* *community* *runamila-ntjaku*
 the people the communities to run-sw
 so the people could run the communities,

$\gamma +2$ *uu* *homeland-akutu* *anku-ntjaku*
 or to homelands to go-sw
 or move out to their homelands.

Note that [6:34] is also an example of nesting a paratactic complex ($\gamma 1 \gamma +2$) within a hypotactic series.

6.3.3 Enhancement

Enhancing clauses are always non-finite. There are four general types of enhancing relation: time, reason, purpose and condition. The different types are realised by differences in aspect of the β clause, and in the sequence of α and β clauses. These options and their realisations are set out in System 6.6.



System 6.6: Enhancing clause complexes

6.3.3.1 Time

Temporal enhancement is realised by one or more dependent realis clauses followed by a finite α clause. There are three temporal alternatives:

1. succession: complete
2. succession: incomplete
3. simultaneous time.

6.3.3.1a Succession: completed β

In completed succession, the preceding β clause is realised by a special verbal inflection -*ntjanu* 'after V-ing' [6:35].

[6:35]

x β *munu antjaki ngari-ntjanu*
 and overnight after sleeping
 And after camping out overnight

α *mungawinki* *paka-nu*
 in the morning did get up
 in the morning they arose

6.3.3.1b Succession: incomplete β

In incomplete succession, and simultaneous time, the realis β clause construes an event as incomplete, and the temporal unfolding is completed by the final α event.

6.3.3.1b (1) Same medium

In example [6:36] the non-finite process *wiya-ringku-la* 'finishing' is completed by the finite process *malaku pitja-ngu* 'did come back'.

[6:36]
 $x\beta$ *pala palulanguru* *uwankara* *wiya-ringku-la*
 from that there everything finishing
 From that point, everything having finished

 α *nganana* *malaku* *pitja-ngu*
 we backwards did come
 we came back.

6.3.3.1b (2) Switch medium

In example [6:37] the incomplete β event is switch referenced *ma-pitja-nyangka*, since the Medium of the α clause *mama-nguntju* 'parents' is different from that of the β clause *tjitji panya paluru* 'this child'.

[6:37]
 $x\beta$ *ka tjitji panya paluru* *mama-nguntju* *ma-pitja-nyangka*
 and this child parents going away-SW
 And that child, his parents having gone,

 α *paka-ra a-nu* *kampangkatu*
 getting up went secretly
 got up and stole secretly away.

As we have noted and exemplified with Text [1:3], hypotactic succession can be recursive (the so-called 'clause chaining' of formal descriptions of Australian and other languages). The hypotactic series in Text [1:3] begins with completed succession *ngari-ntjanu-ngku* 'after sleeping', and unfolds over two more incomplete processes to be completed in the finite process *wirkati-ngu* 'did arrive'.

[1:3']
 $+3 \delta$ *munu pula* *ngarin-tjanu-ngku*
 and they₂ after sleeping
 Then after sleeping,

 γ *pungku-la*
 striking
 hunting some more,

- β *antjakaringku-la*
camping out
and camping out again,
- α *wirkati-ngu*
did finally arrive
they finally arrived.

6.3.3.1c Simultaneous time

With simultaneous time, the events of α and β processes occur simultaneously. This is infrequently realised by enhancement, more commonly by addition; [6:38] exemplifies an enhancing realisation.

[6:38]

- $x\beta$ *ngali nyanga ngura-ngka nyina-ra nyina-ra*
we2 here at home sitting sitting
While living here at home
- α *punu rungku-lpai pukul-tu*
wooden artefact do carve happily-EFFECT
we happily carve wooden artefacts.

6.3.3.1d Rank of hypotactic succession

In the environment of hypotactic succession, the distinction in rank between clause and verbal group is often structurally indeterminate, since the α and β processes may be contiguous, and the identity of participants may be introduced in the β clause, but implicit in the α clause (see Goddard's constituency interpretation discussed in §A.2.4 below). We exemplified this indeterminacy in rank above in example [6:3], which is re-presented below. The test of rank is whether the α and β processes represent two different processes with differing transitivity or polarity values, or a complex process with a single transitivity structure (see Halliday 1994a:282 on comparable criteria for distinguishing verbal group and clause complexes in English, i.e. transitivity and voice). The hypotactic complexes in example [6:3] may be interpreted as clause complexes rather than verb complexes, since in each case the α and β processes differ in transitivity features, including the figure type and their participants, as well as whether or not they are negated.

[6:3']

- $1x\beta$ *munu pula mai kati-ra*
and they2 food bringing
Then bringing the vegetable foods back
- 1α *u-ngangi wati kutjara*
were giving to the two men
they shared them with the two men.
- 2 *ngura-ngka alatjitu -ya nyina-ngi*
right at that place they were sitting
It was right at that place (Piltati) that they were living.

- +3x β *munu kuka wiya-ringku-la*
 and game finishing
 Then all the game was finished
- 3 α *ailuru-ri-ngu*
 did become drought
 as a drought began.
- 4x β *putu tjawa-ra*
 unable digging
 Unable to dig anything up,
- 4 α *pitja-ngi*
 were coming
 the women were coming (back to camp empty handed).

Each hypotactic complex in example [6:3'] represents two separate processes. 1 β is a creative (transporting) action 'bringing', while 1 α is dispositive 'did give' (to the men, an additional participant). Both clause 3 β and 3 α are attributive but the Carrier of 3 β is *kuka*, while the Carrier of 3 α is the implicitly presumed environment as a whole '(it) did become a drought'. In clause 4 it is only the β process *tjawa-ra* that is negated with inability, and the α process *pitja-ngi* is the consequence of this inability.

On the other hand, when the process is a complex one with a single transitivity structure, it can be interpreted as word rank verb complex. This is exemplified in [6:39] below.

- [6:39] *minyma panya paluru β paka-ra α wirijapaka-nu*
 that woman she getting up did run
 Actor Process
 That woman got up and ran.

6.3.3.2 Reason

In the reason relation, the dependent clause is also realis non-finite, as in incomplete succession. However the finite α event is coded as a more or less obligatory Effect of the β Cause. In other words, reason encodes the interpersonal meaning of obligation into a temporal relation between events (see Martin 1992:193–201).

6.3.3.2a Effect and Cause

Reason is distinguished from succession by the order of α and β clauses. In reason, the sequence is typically finite α ^ non-finite β . The finite Effect is presented as the Theme of the clause complex while the non-finite Cause is foregrounded as New information, as exemplified in [6:39] below. The resource of INFORMATION FOCUS for construing consequence was discussed in §3.4.2 above, where a consequence was shown to be realised by the culmination of an information wave.

- [6:39]
 α *palu ngunti kunyu wangka-ngi kapi-tja-ngku paluru*
 but untruly it's said was saying that one with the water
 But he was speaking falsely, that one with the water

$x\beta$ *kapi* *tjiki-ra* *tjiki-ra*
 water drinking drinking-SM
 as he was drinking plenty.

6.3.3.2b Recursive reasons

Like succession, reason may be selected recursively. The Cause in example [6:40] is itself complex, since the α *walypurma-nu* ‘did spear’ is the Effect of β *putu kumpuli-ku tjapi-ra* ‘unsuccessfully asking for water’, which is an Effect of *ngunti wiyanmanku-nyangka* ‘untruthfully denying having any’.

[6:40]

α *wati panya kapi ilu-ngku-mpa kunyu walypurma-nu*
 that man thirsty for water it’s said did spear
 That man who was thirsty for water, it’s said, speared the other,
 $x\beta$ *putu kumpuli-ku tjapi-ra*
 unable for water asking-SM
 having been unsuccessful in asking for water,
 $x\gamma$ *ngunti wiyanmanku-nyangka tjitji panya nyiinka*
 untrue denying-SW that teenage boy
 that *nyiinka* untruthfully having denied having any.

6.3.3.2c Enhancing the Cause with a conjunction

The expectancy relation between effect and cause may also be further enhanced by the conjunction *panya* ‘that (is)’ introducing the β clause, exemplified in [6:41] and [6:42].

[6:41]

α *pukula-ri-nyi -na*
 am becoming happy I
 I am becoming happy.
 $x\beta$ *panya walytja tjuta nyaku-la*
 that many relatives seeing-SM
 from seeing all my relations

[6:42]

α *pikatjara ngari-nyi*
 sick (she) is lying
 She is lying sick.
 $x\beta$ *panya mina kura tjiki-ra*
 that water bad drinking-SM
 from drinking bad water

Western Desert does not distinguish grammatically between the **means** by which the α event follows the β event, and the **reason** for it, unlike English which has a large set of conjunctions for distinguishing types of consequential relations. In other words there is no

grammatical distinction in Western Desert between “sufficient conditions” and “necessary conditions”, for one event to follow another (see Martin 1992:193).³





6.3.3.3 Condition

Condition represents an effect that **may** occur after a causal event. It encodes the interpersonal meaning of probability in a cause and effect relation; in other words the β Condition modalises the α Effect in terms of the likelihood of its occurrence. It is realised by an irrealis non-finite β Condition spoken on Tone 4 (falling-rising), followed an irrealis finite α Effect.

The α Effect may be future tense as in examples [6:43] and [6:44], present tense representing an irrealis event as in [6:45], or an imperative [6:46].

6.3.3.3a Uncertain Effect

The Effect may be coded as less certain by modalising the Condition for it, with the probability particle *-mpa*.

- [6:43] 
 xβ *palya-nti* // *ka-li* *kuwari-mpa* *putu nyakula-mpa*
 OK-maybe so-we2 now-maybe can't be seeing-maybe
- 
 α *yaltjiring-ku* *-li*
 what will do? we 2
 OK maybe, so if maybe we now can't see them, then what will we do?
- [6:44] 
 xβ *mama-nya* *ngalya-pitja-nyangka-mpa*
 father-Medium hither-coming-SWITCH-PROB
 If father comes here
- 
 α *ngayulu* *anku-ku*
 I will go
 then I will go.

6.3.3.3b Probable Effect

Where there is no probability clitic appended to the Condition, the Effect is coded as more certain. This certainty may be coded as higher still if the Effect is in present rather than future tense, and spoken on a high falling Tone 1+ as in example [6:45].

³ It is notable that English consequential conjunctions are all derived from other semantic regions. The English resources for differentiating 'reason' as a logico-semantic relation have become very elaborate only recently in the language's evolution, particularly in the written mode (cf. Rose 1993, Halliday 1994a:398).

[6:45]				
xβ	kuwari	-na	kutjupa	ngalya-wangka-nyangka
	now	I	another	this-way-talking-sw
	Now if somebody insults me			
α	punu nyanga	irati-ngka	kura-ni	
	with this sacred stick		am harming	
	they're going to get hurt with this sacred stick.			

6.3.3.3c Imperative Effect

Where the Effect is an imperative, its certainty is not in question, as in example [6:46].

[6:46]				
xβ	paluru	nyuntu-nya	ungku-nyangka	
	he	to you	giving-sw	
	If he offers it to you			
α	money panya	mantji-la		
	that money	get-!		
	take the money.			

In conditional relations the α Effect must be located in irrealis time, either as future tense, imperative or present tense standing for a more certain irrealis event. Past conditional (so-called 'subjunctive') is not available in Western Desert, i.e. it is not possible to manipulate tense selections to say 'if I had V-ed, I would have V-ed'.

6.3.3.3d Functions of rising and falling tones

The function of Tone 4 to realise condition gives us a useful insight into the nature of the contrast between rising and falling tones, and its function in exchange. Halliday (1994a:302–303) relates the function of this tonal contrast to POLARITY.

Thus, falling pitch means 'polarity known', while rising pitch means 'polarity unknown'... Tone 4, falling-rising, means 'seems certain, but turns out not to be'. It is associated with reservations and conditions, having a general sense of 'there's a but about it'.

In the environment of condition here, the function of Tone 4 is sequencing. The Condition is construed as not only uncertain but 'incomplete'. It sets up an expectancy for completion by the more certain Effect. It ideationalises the tone sequence of a question and answer, and incidentally suggests why the question-answer contrast is naturally realised by the rising-falling contrast. That is a falling cadence is the unmarked value, to which rising tone has evolved as an alternative that is marked as incomplete, so that it can function to expect a response to a question.

6.3.3.4 Purpose

Purpose encodes the meaning of inclination in a cause-effect relation, where the effect is an Action and the cause is its Purpose. The Action is realised by an irrealis non-finite β , as in mental reactions and hypotactic proposals, while the Purpose is finite. The logical sequence is thus the reverse of time, reason and condition, since the cause is α and the effect is β . However the textual sequence of α and β clauses can go either way, without affecting the logical meaning, but enabling either Action or Purpose to be thematised. There are three sub-types, desideration: desire/fear and expectation.

6.3.3.4a Desideration

With purpose: desideration, a conscious Actor intends an effect to occur as a result of the intended Action, as in example [6:47]. Desideration may be positive or negative, encoding desire for the Effect ('so as to V'), or fear of the Effect ('lest V'). In other words, while purpose: desire encodes an inclination to achieve the effect, purpose: fear encodes an inclination to avoid it. Desire is realised by the irrealis inflection; fear is realised by a further inflection *-tawara*, appended to the irrealis-SWITCH inflection [6:48].

With both desire and fear, the β Purpose is often but not always inflected as ACTIVE with *-ngku*, when the β Medium is SAME and the β action is effective. (This also applies to projected intentions as well as purpose.)

[6:47] desire

- α *puli -la tati-nu*
 hill we did climb
 We climbed the hill
- $x\beta$ *kanyila pawu-ntjikitja-ngku*
 euro to shoot-SM
 in order to shoot euros (hill wallabies).

[6:48] fear

- α *ngururpa -na tju-nu*
 middle I did put
 In the middle I put it
- $x\beta$ *punka-ntjaku-tawara*
 lest fall
 lest it fall.

6.3.3.4b Recursive purpose

Like succession and reason, purpose may also be selected recursively, with the first Purpose becoming the Action of the next Purpose. Example [6:49] below illustrates this; in α the Action is 'giving money', the Purpose of which is *β 1jara-ntjaku* 'to divide it up', the dual Purpose of which is γ 1 *community run-amila-ntjaku* 'to run the communities' or γ +2 *homeland-akutu anku-ntjaku* 'to go to the homelands'.

[6:49]

α *tjana starta-ra community-nya money-lta ngaly-u-ngu*
 they starting to communities money at that did give hither
 they started to give the money to the communities,

$x\beta$ *tjara-ntjaku*
 to divide it up-SW

$xy1$ *anangu tjuta-ngku community run-amila-ntjaku*
 the people the communities to run-SW
 so the people could run the communities,

$y+2$ *or homeland-akutu anku-ntjaku*
 or to homelands to go-SW
 or move out to their homelands.

Also like hypotactic succession, the sequence of Action and Purpose can be either progressive or regressive. In all our examples to this point the sequence has been progressive α Action followed by β Purpose. In example [6:50] below, the sequence is regressive, with the β Purpose thematised, for the rhetorical function discussed in §6.2.1.1 above.

[6:50]

1 *ka watja-nu*
 and (he) said
 and (the leader) said,

“ $2x\beta$ *meeting panya run-amila-ntjaku*
 “this meeting to run
 “In order to run this meeting,

“ 2α *ngana-nya nyura Chairman tungku-ntjikitja mukuringa-nyi*
 “who? you³ as Chairman want to put”
 “who do you want to put as Chairman?”

6.3.3.4c Expectation

Purpose: expectation differs from desideration in that it does not involve the desire of conscious Actors. Rather the speaker expects that an Effect will follow an observed Action, as in example [6:51]. This is the less frequent variant.

[6:51]

$x\beta$ *mina puyi-ntjikitja*
 water to rain-SAME
 In order to rain

α *ila-ri-nganyi*
 is becoming near
 water is approaching.

6.3.4 Hypotaxis, modality and the semogenesis of cause

6.3.4.1 Enhancement and modal assessment

Obligation and inclination are combined with interdependency in Western Desert hypotactic clause complexes in reported proposals and in the logical relations of reason and purpose. These combinations of interpersonal and logical meanings involve processes of abstraction, from the here and now, you and me of the speech situation, out to the there and then, it and them, of represented reality. In the first step in abstraction, an interpersonal exchange is represented as a projected command. In Western Desert, obligation is realised congruently by imperative mood directed towards addressee(s), e.g. *a-ra* 'go!'. Imperative mood realises a command—a direct interpersonal relation between speaker and listener, with the speaker placing an obligation on the listener to perform an act. This interpersonal relation of obligation can then be represented metaphorically as a verbal projection of a proposal. This abstraction ideationalises an interpersonal meaning; it reconstrues an interpersonal exchange as a logico-semantic relation between events ('saying ^ doing'), and it incorporates the relation of obligation in the interdependency relation between the two events. Similarly, inclination in Western Desert is also realised by imperative mood, but directed towards speaker(s) (I or we), e.g. *a-ra-la* 'let's go!'. This interpersonal relation can also be represented as a mental projection of a proposal ('thinking/feeling ^ doing').

In a further step in abstraction, the semantic potential opened up by combining obligation and inclination with projection, can be applied to logical relations between material processes. With purpose: desideration, a conscious Actor intends an Effect to occur as a result of an action ('acting ^ desired effect'). With purpose: expectation, obligation and inclination can be applied to a relation between material processes that do not involve the intention of conscious Actors. The speaker expects that an Effect will follow an observed event ('observed event ^ expected effect').

From this sequence it is possible to infer processes of semogenesis in the evolution of resources for expressing causality. Causal relations combine interpersonal meanings of obligation and inclination with logical meanings of interdependency. On the one hand there is a speaker's conscious intention, that either the listener or herself will perform an action; on the other, there is an expectation, that one event will follow another. In the grammar of Western Desert, and in the semantics of both Western Desert and English, conscious intention provides the model for expectancy relations between events in the external world. Whorf (1950) describes how, in Hopi, expectancy relations in the external world are closely related to the intentions and desires of conscious actors. "It is the realm of expectancy, of desire and purpose, of vitalising life, of efficient causes, of thought thinking itself out from an inner realm (the Hopian HEART) into manifestation".

6.3.4.2 Four steps from modal assessment to cause

We can trace four steps in abstraction from an interpersonal relation of obligation to a logical relation of cause. The first abstraction is from an interpersonal exchange to an ideational projection. This abstraction realises a shift in mode, from language as interaction to language as reflection on interaction, illustrated in Table 6.1.

Table 6.1: Mode shift: language as action to language as reflection

context variable	move in abstraction	grammatical resource	example
mode	exchange relation (language as action)	command: imperative mood	<i>a-ra</i> 'go!'
	logico-semantic relation (language as reflection)	verbal projection of command	<i>watja-nu -na</i> <i>anku-ntjaku</i> 'I told you to go.'

The projected command incorporates the meaning of obligation within a logico-semantic relation of projection, providing a model for extending obligation to other types of logico-semantic relations. Commands express a speaker's intention that another person will perform an act. On the model of projected commands, obligation may also be expressed as a mental projection, 'I wish you to do it!'. Mental projections can also be used to express a speaker's inclination for herself to perform an act, 'I wish (me) to do it!' This shift from verbal projection of proposals, to mental projection of proposals represents another step towards the meaning of cause: purpose. This is a shift from reflection on social reality to reflection on internal reality as in Table 6.2.

Table 6.2: Tenor shift: obligation to inclination

context variable	move in abstraction	grammatical resource	example
tenor	social reality: obligation	verbal projection	<i>watja-nu -na</i> <i>anku-ntjaku</i> 'I told you to go.'
	internal reality: inclination	mental projection	<i>mukuringa-nyi -na</i> <i>anku-ntjaku</i> 'I wish you to do it.'

Thirdly, the meaning of inclination is extended from a mental projection to a relation of expansion between two events to realise purpose: desire, 'I'm acting in order for (another event) to happen.' This produces an expectancy relation between two material processes, based on the model of projected proposals, and incorporating the meanings of inclination and obligation.

Finally the expectancy relation can be extended to events involving non-conscious actors to realise purpose: expectation, 'It's happening in order for (another event) to happen.' This is a further shift in abstraction, extending the meaning of obligation from a relation between conscious actors and external reality to a relation between events in external reality, as in Table 6.3.

Table 6.3: Field shift: intention to expectation

context variable	move in abstraction	grammatical resource	example
field	self to external event	purpose: intention conscious Actor	<i>paka-ni -na</i> <i>anku-ntjikitja</i> 'I'm getting up to go.'
	external event to external event	purpose: expectation non-conscious Actor	<i>paka-ni</i> <i>anku-ntjikitja</i> 'it's getting up to go.'

The first of these steps in abstraction, from language as interaction to language as reflection, involves a shift in interpersonal semantic domains, from demanding goods and services (proposals), to giving information (propositions). Halliday (1994a:70) suggests that proposals develop both ontogenetically and phylogenetically prior to propositions.

Now in the life history of an individual child, the exchange of goods-&-services, with language as the means, comes much earlier than the exchange of information.... It is quite likely that the same sequence of developments took place in the early evolution of language in the human race, although that is something we can never know for certain.

In other words the process of abstraction, from language as action to language as reflection, may be a primary semogenic process in the evolution of language in both the individual and the culture. The grammars of both Western Desert and English incorporate this development in logico-semantic relations of projection. Both languages also incorporate the interpersonal meanings of obligation and inclination in projected proposals, and in enhancing logico-semantic relations of cause. The semantic agnation between projected proposals and purpose relations is overtly displayed in their grammatical similarity in irrealis β clauses in Western Desert.

6.4 Cohesive (non-structural) enhancing conjunctions

Above the level of clause complex relations, enhancement is available in Western Desert as a cohesive conjunction that may link clause complexes. This is the conjunction *palulanguru*, literally 'from that', as we looked at in the context of textual Themes in §3.3.5.1. The enhancing relation realised by this item may be interpreted as either subsequent or consequent, i.e. as 'following that event', or 'from that cause'. It functions to make the enhancing event more prominent in the flow of discourse, operating like a locative circumstance as a marked Theme.

6.4.1 Succession

Palulanguru most frequently realises temporal succession. In example [6:52] below it links a preceding sequence of events, realised by hypotactic succession nested in an additive sequence 'would climb -> having speared -> would bring', to a further event 'then would go again'. While clauses within complexes are numbered, clause complex boundaries are indicated in the example by capital letter and full stop.

[6:52]

1 *Ka paluru pula puli-ngka tati-lpai*
 and those2 up the hills would climb
 So those two would climb up the hills,

+2x β *munu kuka waka-ra*
 and game spearing-SM
 and speariing game,

2 α *pula kati-pai malu.*
 they2 would bring kangaroos
 they would brink back kangaroos.

Palulanguru -ya anku-pai kuka-ku piruku.
 from that -they would go for game again
 Then they would go for game again.

6.4.2 Reason

Less frequently *palulanguru* realises a more obligatory relation between events that can be interpreted as cause: reason. In this environment it may be expanded by the reference items *panya* 'that', *pala* 'there', or *nyara* 'yonder', each functioning as anaphoric reference. In example [6:53] the speaker has just recounted that he said 'Lands Trust' and here is explaining why he said it.

[6:53]

α *Panya DCW-ngku piija-la wangka-ngi Lands Trust*
 that is DCW coming were saying 'Lands Trust'

β *nganana-nya ungku-ntjikitja-ngku.*
 us to give-SM
 That is DCW were coming and saying 'Lands Trust', to give it to us.

Panya palulanguru ngayulu wangka-ngu Lands Trust.
 that from that I did say 'Lands Trust'
 That's why I said 'Lands Trust'.

6.4.3 Expansion of *palulanguru*

In addition to the reference items *panya*, *pala* and *nyara*, the cohesive conjunction *palulanguru* may be expanded by common nouns representing a preceding place or event from which the event follows, i.e. 'from that place/event'. It also frequently follows an additive conjunction, such as *ka* in example [6:55].

[6:54] consequence

1 *Ka piruku ngayulu wangka-ngu "Lands Trust"*
 and again I did say "Lands Trust"
 And I again said "Lands Trust".

2 *Panya palulanguru-lta ngayulu kuli-ningi*
 that from that-at that I was thinking
panya DCW-ngku piija-la wangka-ngi "Lands Trust"
 that DCW coming was saying "Lands Trust"
 This was because I was thinking about DCW coming and saying "Lands Trust".

[6:55] succession

Ka meeting nyara palulanguru titutjara ngarakati-ngu rawa alatjitu
 so from that meeting all the time did stand up utterly continually
 So after that meeting there were meetings all the time, continuously.

6.5 Complexing at other ranks

The choice of complexing is available at morpheme and word/group ranks, although the options for RECURSION, TAXIS and INTERDEPENDENCY TYPE are more restricted at lower ranks. We will briefly explore these choices for word and group complexes, and then illustrate a few options for morpheme complexity.

The ranks of word and group are brought together in the description here since the option of group is not available for verbs and personal pronouns in Western Desert, but only for nominals and adverbials. That is, nominal and adverbial groups are treated as expanded words, multivariate orbital structures with a nominal or adverbial as nucleus. We will begin the discussion with verbal and pronominal options, followed by nominal group complexes (adverbial groups are not complexed in Western Desert).

6.5.1 Verb complexes

There are two types of verb complexes. One is a hypotactic duplex consisting of a non-finite β verb preceding a different finite α verb. These realise complex events, such as simple activity sequences. There are many such duplexes that occur frequently enough to be considered single lexical items. The other type is a series consisting of the same non-finite verb iterated to realise temporal duration.

6.5.1.1 Duration

Temporal duration is realised in Western Desert by iteration of a realis non-finite verb. This complex may function as:

- i) the Process of a dependent clause, or
- ii) a circumstance of Duration.

6.5.1.1a As Process of a dependent clause

[6:56] *kapi* 1 *tjiki-ra* 2 *tjiki-ra*
 water drinking drinking
 continuously drinking water

[6:57] *ngali nyanga ngura-ngka* 1 *nyina-ra* 2 *nyina-ra*
 we2 here at home sitting sitting
 We two were sitting at home for a while.

6.5.1.1b As a circumstance of Duration

[6:58] *watarku minyma kutjara tjawa-ningi* 1 *tjawa-ra* 2 *tjawa-ra*
 heedlessly two woman were digging digging digging
 Heedlessly the two women were digging, digging and digging.

[1:3] is a good example of this serial potential, including three circumstances of Duration.

- [1:3'] *ka paluru a-nangi alatjitu titutjara* 1 *anku-la* 2 *anku-la* 3 *anku-la*
 and he was going utterly continually going going going
- ngura nyara wanu* 1 *wati-pitja-la* 2 *wati-pitja-la* 3 *wati-pitja-la*
 through yonder place crossing crossing crossing
- 1 *anku-la* 2 *anku-la* 3 *anku-layii*
 going going going
- He was travelling continually, going, going and going, crossing continually through yonder country, going, going and going.

6.5.1.2 Complex processes

Complex processes fall into two categories. The first are complex material processes, in which the β verb enhances the α verb as time, manner, cause, etc. The second are mental projections, in which the α verb is a mental process that projects the β verb, realising degrees of inclination: intention or desire.

The Medium of both processes in a verb complex is always the same identity, so the subordinate verb is always inflected as SAME PERSON, while the primary verb is inflected for its clause rank function.

6.5.1.2a Material clauses

6.5.1.2a (1) Time

The first two examples are successive, while the third is simultaneous time.

- [6:59] *x\beta paka-ra* α *a-nu* *kampangkatu*
 getting up did go secretly
 Getting up, she secretly left.
- [6:60] *minyma panya paluru* *x\beta paka-ra* α *wirtjapaka-nu*
 that woman she getting up did run
 The woman got up and ran.
- [6:61] *punu panya irati* *x\beta ngari-ra* α *pinpapinpa-nyangka*
 that sacred stick lying flashing
 That sacred stick was lying there, flashing.

6.5.1.2a (2) Manner and purpose

- [6:62] *nganana yaltjiyaltji-ngku* *x\gamma alpamila-ra* *x\beta ungku-la* α *ungku-ntjaku*,
 we3 how? helping giving to give
 How are we helping, by giving, for them to give in return?

6.5.1.2b *Mental clauses*6.5.1.2b (1) *Intention*

- [6:63] *munu-la* *'β ngatji-njikitja-ngku* *α kuli-ni*
 and we to borrow are thinking
 And we are thinking of borrowing it.

6.5.1.2b (2) *Desire*

- [6:64] *palu ngayulu piruku* *'β nintiringku-njikitja* *α mukuringa-nyi*
 but I more to learn am wanting
 But I wanted to learn more.

6.5.2 *Pronoun complexes*

Personal pronouns are complexed serially like verbs, to realise complex participants and circumstances. However the logicosemantic relation is elaborating. Pronouns may be elaborated by:

- i) number: two or more,
- ii) deixis: anaphoric or exophoric,
- iii) iteration of their meaning by another clitic pronoun,
- iv) common or proper nominal groups and series.

The "a" pronoun is the final element in the series, inflecting for number and transitivity role, and dependent pronouns mirror this transitivity inflection.

6.5.2.1 *Elaborating with number*

Here the function of the elaborating pronoun is to specify the number of the person as dual [6:65] or plural [6:66–7].

- [6:65] *ka =β paluru α pula puli-ngka tati-lpai*
 and s/he they2 up the hills would climb
 and those two would climb up the hills

- [6:66] *=β paluru α tjana wilurara-kutu a-nu*
 s/he they3 to the west did go
 She and they went off to the west.

- [6:67] *=γ nyara =β tjana α -ja walytja-ngku kanyi-ni*
 yonder they3 -they3 themselves are having
 Those ones yonder manage it for themselves.

6.5.2.2 *Elaborating with class or identity*

In the following examples, the function is to specify the type or identity of a person or thing.

6.5.2.2a *With a common noun*

- [6:68] *palu ngunti kunyu wangka-ngi* = β *kapi-tja-ngku* α *paluru*
 but wrongly it's said was saying with water he
 But he was lying, that one with the water.

6.5.2.2b *With a nominal group series*

- [6:69] = ϵ *pakali tjutangku* = δ *katja tjutangku* = γ *puliwiringku* = β *untal pangku*
 grandsons sons granddaughters daughters
 α tjana ngapartji piruku artunmana-nyi
 they in turn again are looking after
 Our grandsons, sons, granddaughters and daughters will look after (the land) in turn.

6.5.2.2c *With anaphoric reference and a common noun*

6.5.2.2c (1) *As actor*

- [6:70] = γ *minyma* = β *panya* α *paluru* *paka-ra wirtjapaka-nu*
 woman that s/he getting up did run
 That woman, she got up and ran.

6.5.2.2c (2) *As goal*

- [6:71] *munu-ya* = γ *manta* = β *panya* α *palu-nya* *mantji-ra kati-ngu*
 and they land that s/he getting did take
 And getting that land, they took it back.

6.5.2.2d *With a proper name*

- [6:72] *urungkalta kunyu ma-tjarpangu* = γ *Kipara* = β *panya* α *paluru*
 into that water it's said did enter Kipara that s/he
 And into that water it's said that Kipara submerged.

6.5.3 *Nominal group complexes*

Nominal groups may be complexed as elaborating or extending paratactic series. They may realise complex:

- i) participants,
- ii) nominal elements such as possessive Deictics,

iii) circumstances,

iv) of thing and circumstance.

6.5.3.1 *Complex participants*

Complex participants are groups with more than one member that are added to or elaborate the Head of a nominal group.

6.5.3.1a *Additive: kulu 'as well as' following final element*

- [6:73] *nganana ngapartji 1 tjitjingku +2 minymangku +3 watingku kulu kanyin-ma*
 we in turn children, women men as well look after!
 We, the children, women and men care for (the land) in turn.

6.5.3.1b *Additive: munu 'and' preceding final element*

- [6:74] *1 wati tjuta +2 minyma tjuta +3 munu tjitji tjuta tjungurinkula*
 men women and children coming together
 ...men, women and children coming together.

6.5.3.1c *Elaborating*

- [6:75] *munu-la 1 kurku wituwitu pala =2 wiltja wituwitu kanyi-ntjikitja mukuringa-nyi*
 and we that strong kurku tree strong shelters wanted to have
 and we wanted to have those strong kurku trees as shelters to protect us

6.5.3.1d *Elaborating possessive deictic*

- [6:76] *tjitji tjuta wirura nintini 1 kamiku =2 tjamuku tjukurpa tjuta*
 children they are teaching well grandmother's grandfather's many stories
 The children are being taught their grandmothers' and grandfathers' stories.

6.5.3.2 *Complex circumstances*

Complex circumstances are like complex participants in that one is added to or elaborates another.

6.5.3.2a *Added circumstances: behalf*

- [6:77] *manta wituwitu nyanga-nyi 1 wati tjiłpi tjuta-ku +2 munu ngana-mpa kulu*
 land they are strongly guarding for the senior men and for us as well
 They are strongly guarding the land for the senior men and for us as well.

6.5.3.2b *Elaborated circumstances: time (indeterminate with elliptical clause rank elaboration)*

[6:78] *paluru wirkanu*
 s/he did arrive
 She arrived.

1 *iriti* =2 *nganana wiya* =3 *nganana-la wiya-ngka* =4 *iriti mulapa*
 long ago we not without us really long ago
 he arrived long ago, before we were born, a very long time ago.

6.5.3.2c *Enhanced circumstances: behalf and time*

[6:79] *ngana-mpa manta nyangatja* 1 *maru tjutaku* x2 *iriti-nguru*
 this is our land for the people from long ago
 This is our land, belonging to the black people, from earliest times.

6.5.3.2d *Thing elaborated first by a circumstance and secondly by a thing*

[6:80] 1 *nyanga manta wituwitu* =2 *panya whitefellow wiya-ngka* =3 *manta nyangatja*
 this strong land that is without whitefellows this land
kanyi-ntjikitja-ngku
 to hold-SM
 ...to take care of this great land before the whitefellows came.

6.5.4 *Morpheme complexes*

As with items at higher ranks, morphemes are located at either end of the lexicogrammatical spectrum of delicacy. A large number of morphemes function lexically, as lexemes, i.e. they fulfil delicate functions as lexical stems. They realise units at word rank (i.e. verbs, nouns, adverbs etc.). Lexemes are most frequently realised by syllable duplexes, and may themselves be complexed. On the other hand, a finite number of morphemes function grammatically, that could be dubbed 'gramemes', i.e. they fulfil general grammatical functions which vary according to their functional environment at higher ranks. They generally do not function independently at higher ranks, but as affixes that inflect words or groups for clause rank functions. Grammatical morphemes are most frequently realised by single syllables, which may be complexed as a morpheme series.

6.5.4.1 *Lexical morphemes*

A lexeme may be expanded by another in a duplex to realise a complex word stem. The modifying lexeme may be the same or different from the head lexeme, and the sequence is always $\beta \wedge \alpha$. In other words the modifying β lexeme precedes the head α lexeme, which may then be inflected for modality, tense, aspect and polarity, i.e. the head lexeme may directly realise a function at clause rank, while its bound modifier does not.

6.5.4.1a Verbal lexemes

Verbal lexeme duplexes are typically reduplicated lexemes. These may be independent lexical items, or derived from a lexical item or a sound. Although both units are identical lexemes, the sequence is still $\beta \wedge \alpha$ for the same reasons as above; the head may be inflected for a clause rank function, while its modifier may not.

- i) *wangka- wangka-nyi*
talk talk
'is chattering'
- ii) *kutja- kutja-ni*
cook cook
'is heating up'
- iii) *nintil- kati-ni*
learn carry
'is learning continuously towards a goal'
- iv) *war- punga-nyi*
non stop strike
'is hurrying up'

6.5.4.1b Nominal and adverbial lexemes

As with verbal lexemes, nominal and adverbial lexeme duplexes are typically reduplicated lexemes with similar characteristics.

6.5.4.1b (1) Thing (noun)

- i) *takul- takul-pa*
knock knock (from sound of striking the ground)
'deep pit for roasting game'
- ii) *itjari- tjari*
down down (from direction of movement)
'marsupial mole'

6.5.4.1b (2) Quality (adjective or adverb)

- i) *rama- , rama*
mad mad
'crazy/irresponsible'
- ii) *tjuku- tjuku*
small small
'tiny'

6.5.4.2 Grammatical morphemes

Grammatical morphemes are classed along the same axes as lexical ones, between nominal and verbal. But while lexemes realise the more delicate distinctions between things, qualities and processes, grammatical morphemes realise general clause rank functions associated with these elements of experience. Grammatical morphemes typically affix to lexical stems as suffixes, or less frequently as prefixes, inflecting them for a clause rank function. In the verbal domain these include functions such as modulation, tense, aspect, polarity. In nominals they include participant roles, mood person and number (pronouns), and circumstantial roles. Adverbials lie between the two, being inflected only for transitivity concord with the Process/Medium nucleus: effective/non-effective.

Nearly all of the grammatical morphemes realising these functions are mono-syllabic. The exceptions are prefixing inflections realising direction (see §2.6.4.1 above), and suffixing inflections realising enhancement in the environment of circumstances and non-finite processes. Suffixing morphemes inflect either nominal or verbal stems to realise enhancing relations with the major process in a clause or clause complex, prototypically spatio-temporal. However, they may also involve modulation, realising purpose, fear and projected proposals as verbal affixes.

Table 6.4: Circumstantial suffixes (examples of expansion)

α	β	γ	δ	feature
nom gp	-la			location: proper/pronoun
nom gp	-ngka			location: common noun
nom gp	-ku			destination
nom gp	-ki	-tja		purpose
nom gp	-la	-ku	-tu	location: towards: proper/pronoun

Table 6.5: Non-finite verbal suffixes (examples of expansion)

α	β	γ	δ	feature
V	-la /ra			realis: same Medium
V-nya	-ngka			realis: switch Medium
V-tja	-nu	-ngku		completed realis aspect
V-tja	-ku			irrealis: switch Medium
V-tji	-ki	-tja		irrealis: same Medium
V-tji	-ki	-tja	-ngku	irrealis: same Medium +effective

The structural potential of prefixing and suffixing morphemes is exemplified for verbs in [6:81] (re-presented from §2.6.3.3 in Chapter 2). In this example, the verb stem *pitja* ‘come’ is inflected for centripetal direction, and negative purpose. The latter has a special form of the negative verbal suffix *-tawara* ‘lest’.

[6:81]	ngalya-	pitjan	-tja	-ku	-ta	-wara
	β	α	β	γ	δ	ϵ
	CENTRIFUGAL-	coming	-NOMINAL	-LOCATIVE	-NOMINAL	-NEGATIVE
	‘lest (she) come hither’					

6.6 Logical resources in Western Desert and English

As with TRANSITIVITY, the general options for COMPLEXITY are also comparable in Western Desert and English. Units at each rank are serialised by paratactic or hypotactic options, including the same general set of logicosemantic relations in projection or expansion. Comparisons are set out in Table 6.6 below.

Table 6.6: Comparison of logical resources in Western Desert and English.

WDC 6.3	Projection	IFG 7.5
Verbal locutions and mental perception are typically quoted; reaction is reported as non-finite β . Perception projects propositions; affective reaction projects proposals.	Verbal locutions typically quoted; mental ideas typically reported. Verbal and mental cognition project propositions/mental affection proposals. Locutions, ideas and facts may be embedded in nominal groups, as Qualifier or Head.	
WDC 6.4	Expansion	IFG 7.4
Elaboration: specifying/clarifying; realised by paratactic tone concord and <i>panya</i> . Extending: paratactic addition (realised by same Medium/switch Medium conjunctions)/alternation realised by paratactic tone contrast. Enhancing: time (success/simul)/reason/condition/purpose; realised by hypotactic non-finite β and tone. Enhancing series ending with a finite Head are common (so-called 'clause chaining').	Large set of conjunctions for realising expansion relations. Elaboration: expository/exemplifying/clarifying; typically paratactic. Extending: additive (pos/neg/adversative)/varying (replacive/subtractive/alternative); typically paratactic. Enhancing: temporal (large set of options)/spatial/manner (means/comparative)/cause (reason/purpose)/condition (pos/neg/concessive); typically hypotactic non-finite.	

Variation in projection types between Western Desert and English is partly a matter of alternative functional potentials, and partly alternative probabilities in discourse. Alternative functional potentials include the options of perception/reaction in Western Desert in contrast to cognition/perception/emotion in English. A major example of alternative probabilities is the preference for quoted ideas in Western Desert and for reported ideas in English.

Alternative probabilities are as important a type of variation as alternative or diversifying functions and realisations; they tend to be associated with spoken and written language, such as the relative length and complexity of nominal groups. Probability is also a variational criterion in types of expansion: while Western Desert enables only parataxis for elaborating and extending relations, and hypotaxis for enhancing ones, these are typical co-selections in English. Nesbitt and Plum (1988) suggest that the modern English system, that dissociates and freely combines taxis and expansion type, evolved out of a system like that of Western Desert.

The potential for freely combining taxis, interdependency type and finiteness is a general example of functional diversification in English. It is facilitated by the diversity of

conjunctions available for cohesion, parataxis, hypotaxis and embedding. Conjunctions also enable a diversity of expansion types, particularly apparent in enhancing domains, such as time and cause. Options for construing cause in English have greatly diversified in its written mode, and are one of the major features of semantic variation between the languages. Experientially, the Western Desert model favours ‘emergent’ construals of cause, as in Text [3:4] *ka tjilka-ringu* ‘and it became the *tjilka*’, while English favours an agentive model, that is nominalised in the written mode, e.g. from Durkheim (1912:433–434): “Now it is unquestionable that language, and **consequently** the system of concepts which it translates, is **the product** of a collective elaboration” (see Rose 1993 for a comparative survey of the grammar of causality in Pitjantjatjara and English).

Table 6.6: (continued)

WDC 6.6	Logical group rank	IFG 6.3; 7A1–6
Personal pronouns and verbs form hypotactic serial structures		Verbal groups have an elaborate serial tense system, consisting of a Head expressing primary tense/modality/polarity/aspect, and a series of secondary tenses terminating with the Event.
Pronominal complexes may have personal, demonstrative, nouns or names as elaborating modifiers with a personal pronoun as Head.		Paratactic nominal, verbal and adverbial group complexes: elaborating/extending/enhancing.
Verb complexes consist of a non-finite modifier and finite Head (or non-finite series in circumstances of Duration).		Hypotactic nominal group complexes: elaborating/extending.
Nominal groups may also form additive complexes.		Hypotactic verbal group complexes may be expanding (phase/conation) or projecting (time/manner/cause). (Note the use of English phase as β verb in Text [7:1], e.g. <i>starta-ra...ngaly-u-ngu</i> ‘started to give’).

We have already discussed the serial structure of English verbal groups. Other examples of logical diversification at group rank include the variety of nominal and verbal group complexes that Halliday (1994a) describes, some of which are also features of Western Desert. One common difficulty for Anangu English learners in this region of the grammar is the additive structure of English nominal group series, since their experience is of elaborating pronominal series, and this seems to be reinforced by the ellipsis of ‘and’ in all but the final position in an English group. This is a clear example of a problem that can be simply resolved by explicit modelling and comparison.

Table 6.6: (continued)

WDC 5.4	Ideational metaphor	IFG 10.3
<p>Transcategorisation of word functions, including verbalisation, nominalisation, adjectivisation and adverbialisation.</p> <p>Nominalised processes may function as names of Roles, e.g. <i>wali palyal-pai</i> 'house builder' and as Qualities embedded in nominal groups, e.g. <i>wati</i> <i>[[kuwari pitja-ntja]] tjuta</i>.</p> <p>Except as Roles, embedded clauses do not function as Head of a nominal group, i.e. as a clause rank participant.</p> <p>Few lexical abstractions, e.g. names for languages varieties.</p>	<p>Very large range of ideational metaphors, particularly in written mode.</p> <p>Embedded clauses and nominalisations frequently functioning as Head of nominal groups, i.e. as a clause rank participants.</p> <p>Vast open set of abstract and technical lexis, mostly created from Greek and Latin transcategorisations.</p> <p>Verbalisation and nominalisation of logical relations to function as process or participants in relational clauses.</p> <p>Ideational metaphors have proliferated to organise sequences of Theme and New in technical/abstract written text.</p>	

Ideational metaphor is the single most difficult barrier that Anangu learners find in negotiating written English (for an extended discussion see Martin 1991, Rose 1999). Ideational metaphor involves more than the transcategorisation of words and groups, since each metaphorical figure includes both a transferred and literal meaning. For example, by means of nominalisation of a verb, a process comes to be realised by a nominal group, so it retains the meaning of process, but is simultaneously construed as an abstract or technical thing. Much of the abstract and technical lexis of modern English is derived from transcategorisation of Greek, Latin as well as English verbs, and this remains a major discursive resource for constructing abstract arguments in text (Rose et al. 1992, Halliday & Martin 1993). Western Desert has the same realisational potential for transcategorisation as Greek, Latin and English, but ideational metaphor remains a minor functional motif in the Western Desert code.

7 Conclusion

7.1 Introduction

The aim of this concluding chapter is to summarise the findings of the survey. This is no small task given the wealth of resources for meaning that have been identified for each region of the Western Desert language. My strategy for doing so is to exemplify the socio-semantic potential of the language from the perspective of its instantiation as text. To this end I have used one text as an exemplar to illustrate how the resources of IDENTIFICATION, THEME, INFORMATION, MOOD, MODAL ASSESSMENT, TRANSITIVITY and COMPLEXITY are employed to achieve its speaker's goals.

The text used to exemplify the instantiation of these systems is an extract from an historical recount of the Pitjantjatjara people's land rights struggle. This text has the advantages of strong internal cohesion and organisation to illustrate the roles of textual resources; a range of quoted dialogue and thoughts to illustrate the roles of interpersonal resources; a variety of process types to illustrate experiential resources, and clause complexing relations to illustrate logical ones; and has already been used extensively in the survey to illustrate various features. The interplay of these resources in the logogenesis of a text is referred to by Halliday (1994a:334) as its 'texture', which is described by Martin (1992:382) as the "interleaving of discourse semantics, lexicogrammar and phonology". The aim of these analyses is to demonstrate how the resources of systems in these strata can be woven together to produce the texture of Western Desert discourse, and so realise its cultural contexts.

This chapter then constitutes the macro-New element of the survey as a whole, and is intended to both distil the new information presented in each chapter of the *Western Desert Code*, and simultaneously point to a number of potential macro-Themes for future work.¹ The new information presented by the analysis of the historical recount is an emerging ideology of anti-colonialism and the development of political strategies to assert Anangu community control. One of the strategies for assuming control that Anangu have long identified is through school and further education for their young people, the basis of which is to be the acquisition of high-level spoken and written English (see Japangardi Poulson 1988, Gray 1990, Martin 1990, Lester 1993, Nakata 1999, Rose 1992, 1999). To this end the macro-New information in each chapter of the survey above has been the identification of points of functional and realisational divergence between Western Desert and English. The

¹ See Martin (1992), and Wignell (1997) on macro-Themes, macro-News and the phylogenesis of social science discourse.

² Department of Community Welfare, SA, managed the Pitjantjatjara communities and reserves with a system of Superintendents, before indigenous policy of the Australian government changed in 1973, from 'assimilation' to 'self-management'. Land ownership in Lands Trusts is retained by the government and leased to indigenous communities.

- +2 *ka anangu tjuta-ngku* panya Lands Trust *putu* kuli-ningi
and the people that Lands Trust unable were thinking
But many people couldn't understand that Lands Trust,
- +3 *ka -ya alatji* kuli-ni
and they this way are thinking
and were thinking thus,
- 3'1 *tjinguru fence* para-tju-nanyi // *anga-tju-nanyi*
maybe fence are putting around are blocking
"Maybe they're putting a fence around it, blocking it off."
- 3'2 *nyangatja* block *kutjupa-ku* 3=3 // *nyangatja* block *kutjupa-ku*
this a block for another this a block for another
"This is a block for one, this is a block for another."
- +4 *palu wiya* panya
but not that
But that was not correct,
- =5 *paluru tjana* fence *anga-tjungku-ntja-wiya* // *palya-ntja-wiya*
they fence not blocking not making
They were not fencing it off, not building a fence.
- +6.1 *ka palulanguru* paluru tjana starta-ra
and from then they³ starting (to say)
So at that point they said,
- 6"2.1 *wiya nganana* wangka *kutju*
no we³ one language
"No, we are one language,
- 6"2+2 *munu -la* tjilkatja kutju *anku-pai*
and we³ as one *tjilkatja* do travel
and we go on one *tjilkatja*."³
- +7.1 *ka palulanguru* ara-ltja-nu
and from then did finish (by saying)
So they then replied,
- 7"2.1 *wiya wanti* // *palya*
no leave it-! alright
"No, leave it for now, it's alright,
- 7"2+2 *ka -la* piruku *kuli-la*
and we more think-!
and we'll think more,
- 7"2+3 *munu wangka* ngula
and talk-! later
and talk about it later."

³ The *tjilkatja* or *tjilka* (see also text 3:5) is the cycle of initiation ceremonies on which large numbers of Anangu travel each year from community to community across the Western Desert.

- +8 ka paluru *a-nu*
and he did leave
So that person left,
- +9 ka nganana *nyina-ngi Amata-la*
and we were sitting at Amata
and we stayed.
- =10 anangu tjuta panya *nyina-ngi Amata-la*
people that is were sitting at Amata
// *nyina-ra nyina-ra*
sitting sitting
The people that is were at Amata, living there a long time.
- 11 palulanguru *idea kutjupa paka-nu*
from then another idea did arise
Then another idea came up,
- =12α panya ti-yai-yai *tjaata-ra waarkari-ngi*
that DAA starting was working
when DAA started to work,⁴
- 12xβ government *change-ari-nyangka // Whitlam*
government having changed to Whitlam
when the government had changed to Whitlam.⁵
- 13xβ government paluru *change-ari-nyangka*
that government having changed
When that government changed,
- 13α tjana *starta-ra community-nya money-lta ngalya-u-ngu*
they starting community money-at that did give this way
they started to give the money to the communities,
- 13xγ tjara-ntjaku
to divide (it) up
to divide it up,
- 13δ.1 anangu tjuta-ngku *community run-amila-ntjaku*
the people the communities to run-SW
so the people could run the communities,
- 13δ+2 uu homeland-akutu anku-ntjaku
or to homelands to go
or move out to their homelands.
- +14 ka panya palu-nya time
and at that time
Then at that time,

⁴ The federal Department of Aboriginal Affairs that started operation in 1973.

⁵ Whitlam was Labour Prime Minister in 1972–1975 and instituted major changes in indigenous policy.

// ngana-lu Barry Owen paluru watja-ningi Pitjantjatjara **Band**
 who? Barry Owen he was telling Pitjantjatjara Band
 Barry Owen was proposing the name 'Pitjantjatjara Band'.⁶

- +15 ka -la palu-nya panya kuli-ni
 and we that that is are thinking
 So we thought about it,
- +16 munu kunyu nyaaku piranma-ngku ini panya tju-nu // council **nyangatja**
 and it's said why? whites this name did give this council
 and it was said "Why are whites giving that name to this council?"
- +17.1 ka -la pala palu-la kuli-ni
 and we at that there are thinking
 At that point we thought,
- 17'2 nyanga palu-nya **piranpa**-ku idea [[pitja-ntja]]
 this here a white's idea coming
 "This is a whites' idea that's come."
- +18.1 ka -la kuli-ni
 and we are thinking
 So we thought,
- 18'2 uti nganana kuli-lku
 clearly we will think
 "Clearly it is we who should decide."

7.2.1.2 Identification chains

As the mode of Text [7:1] is field-constituting, all of the reference is endophoric. Identification chains in the text are set out in Figure 7.1 below. In order to simplify the presentation, each line represents only those clauses that are finite and not projected. This also enables the identifying function of switch conjunctions to be clearly displayed.

The two major chains in Figure 7.1 are those of the participants functioning as Medium and Theme in most clauses, of *whites* and *Anangu*. The additive conjunctions in most lines function to switch between these two groups of identities. The other two chains illustrated in Figure 7.1 are not so much reference chains as lexical ones that fall into two general groups, including *ideas* and *names* discussed and various aspects of *community*.

⁶ Barry Owen was a DAA field officer.

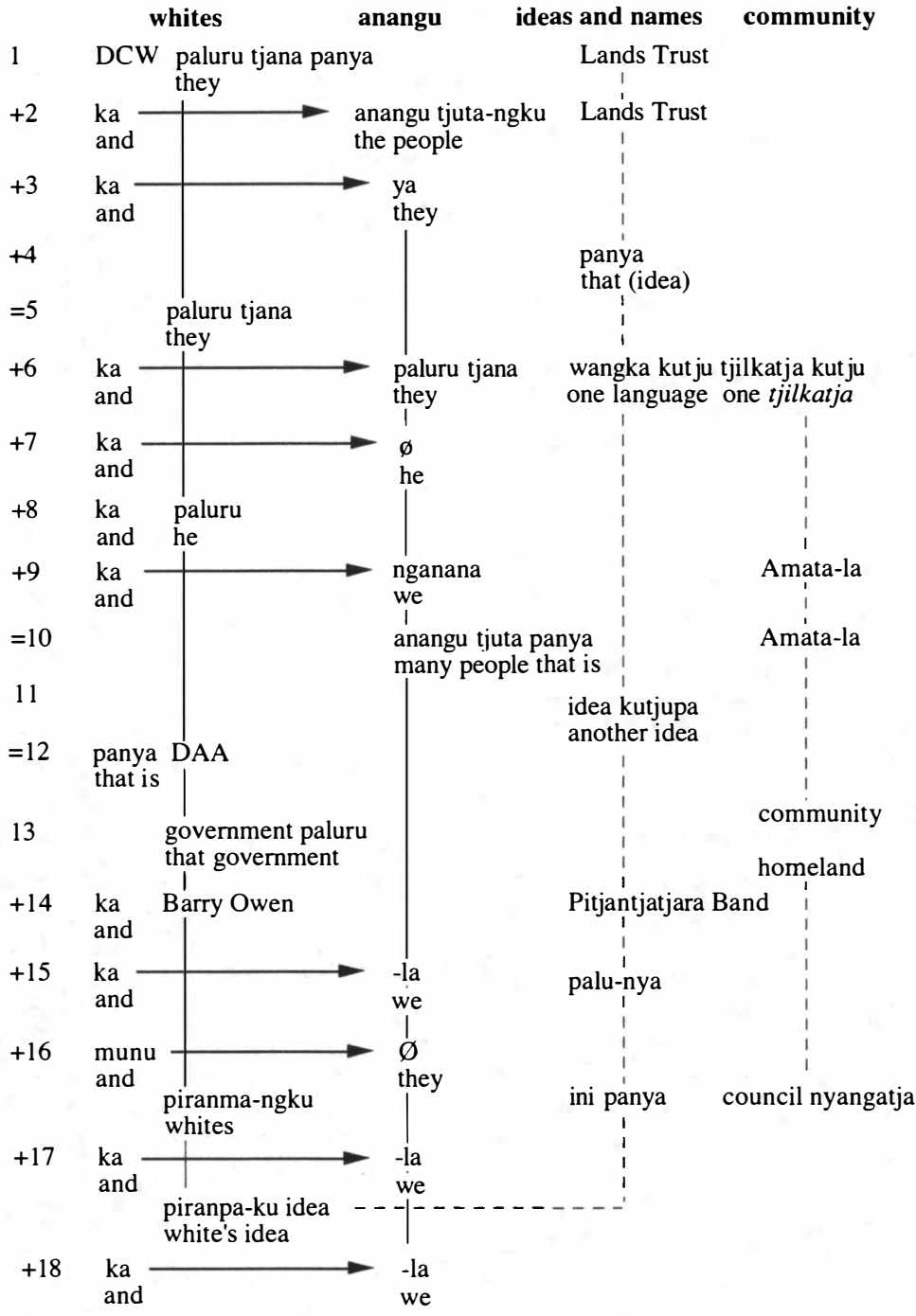


Figure 7.1: Reference chains in Text [7:1]

7.2.1.3 Themes

In Table 7.1, Themes are set out so that circumstantial elements and participants can be clearly identified, as well as textual and interpersonal Themes. Only Themes in clauses that are finite and not projected are shown, to clearly indicate the role of Themes in the global organisation of the text, and to simplify the presentation.⁷

Table 7.1: Themes in Text [7:1]

	textual	inter person	experiential circumstantial	participant	identity
1 +2 +3 +4 =5	<i>ka</i> <i>ka</i> <i>palu</i>	<i>wiya</i>	<i>DCW nyina-ntja time</i>	<i>paluru tjana panya</i> <i>anangu tjuta-ngku</i> <i>ya</i> <i>panya</i> <i>paluru tjana</i>	whites anangu anangu text whites
+6	<i>ka</i>		<i>palulanguru</i>	<i>paluru tjana</i>	anangu
+7 +8 +9 =10	<i>ka</i> <i>ka</i> <i>ka</i>		<i>palulanguru</i>	Ø <i>paluru</i> <i>nganana</i> <i>anangu tjuta panya</i>	(anangu) leader we anangu
11 =12 13	<i>panya</i>		<i>palulanguru</i>	<i>idea kutjupa</i> <i>DAA</i> <i>government paluru</i>	abstract whites whites
+14 +15 +16 +17 +18	<i>ka</i> <i>ka</i> <i>munu</i> <i>ka</i> <i>ka</i>	<i>kunyu</i>	<i>panya palu-nya time</i> <i>nyaaku</i>	<i>Barry Owen</i> <i>-la</i> <i>piranma-ngku</i> <i>-la</i> <i>-la</i>	whites we whites we we

The circumstantial Themes in lines 1, 6, 7, 11 and 14, function to announce the temporal location and staging of the activity sequence. The five stages of the text they introduce are indicated by a double border in Table 7.1. The significance of this staging is addressed further below in the information, mood and clause complexing structures. Participant Themes are either Anangu or whites and their agencies, except for two abstract participants, presuming the text (4) and presenting an idea (11). Textual themes are mostly additive

⁷ Note that the analysis of Theme here includes both circumstances and participants as elements of Themes. This differs slightly from Halliday's (1994a:52) analysis of experiential Themes in English, which he defines as follows:

...the Theme always contains one and only one of these experiential elements. This means that the Theme of of a clause ends with the first constituent that is either participant, circumstance, or process.

However this definition excludes the interaction of experiential Theme and participant identification, which was shown in Chapter 3 for Western Desert, and which Martin and Peters (1985) suggest may also be the case for English. In Western Desert the resource of clitic pronouns means that every Theme includes the identity of Medium, whether or not there are preceding experiential elements. Martin (1983) describes a similar pattern in Tagalog. (It is possible that personal pronouns in English initially evolved with a similar potential, since they are generally non-salient items.)

conjunctions that switch the identity of thematic participants. There are only two interpersonal Themes in these finite non-projected clauses.

7.2.1.4 Information waves

In Table 7.2, information waves are grouped according to the five stages announced by circumstantial Themes. Participant Themes are summarised to the left, the New elements of each tone group are presented, with News that are also Themes in bold. The field of each wave is summarised to the right. The information waves are then modelled below in Figure 7.2.

Table 7.2: Themes, News and logogenesis of Text [7:1]

	Themes	News	logogenesis of field
1a	whites and anangu	<i>DCW nyina-ntja time // nyaa // Lands Trust tjungku-ntjikitja-ngku // Lands Trust putu kuli-ningi // alatji kulini</i>	state offers Lands Trust and Anangu misunderstand
1b	whites	<i>fence para-tju-nanyi // anga-tju-nanyi // block kutjupa-ku // block kutjupa-ku // wiya panya // fence anga-tjungku-ntja-wiya // <i>palya-ntja-wiya</i></i>	misinterpretation of Lands Trust and correction
2	anangu	<i>wangka kutju // tjilkatja kutju anku-pai</i>	Anangu reflect on their own political unity
3	anangu and whites	<i>wanti // palya // piruku kuli-la // wangka ngula // anu // Amata-la // anangu tjuta panya Amata-la</i>	leader adjourns meeting; whites return home and Anangu stay in Amata
4	idea and government	<i>idea kutjupa paka-nu // government change-ari- nyangka // Whitlam // government change-ari-nyangka // money-lta ngalya-u-ngu // tjara-ntjaku // community run-amila-ntjaku // homeland-akutu anku-ntjaku</i>	change in government policy and Anangu control over money and communities
5	whites and anangu	<i>panya palu-nya time // Pitjantjatjara Band // kuli-ni // nyaaku piranma-ngku // council nyangatja // <i>piranpa-ku idea [[pitja-ntja]] // nganana kuli-lku</i></i>	whites attempt to name council; Anangu critique and decide for themselves

The information wave form of Text [7:1] is illustrated in the following diagram, Figure 7.2. The diagram is numbered in the same sequence as Table 7.2 above. As set out in §3.4.2.4, each box contains a New element in the text, and marked New elements (i.e. those conflated with Theme) are represented as peaks in the wave.

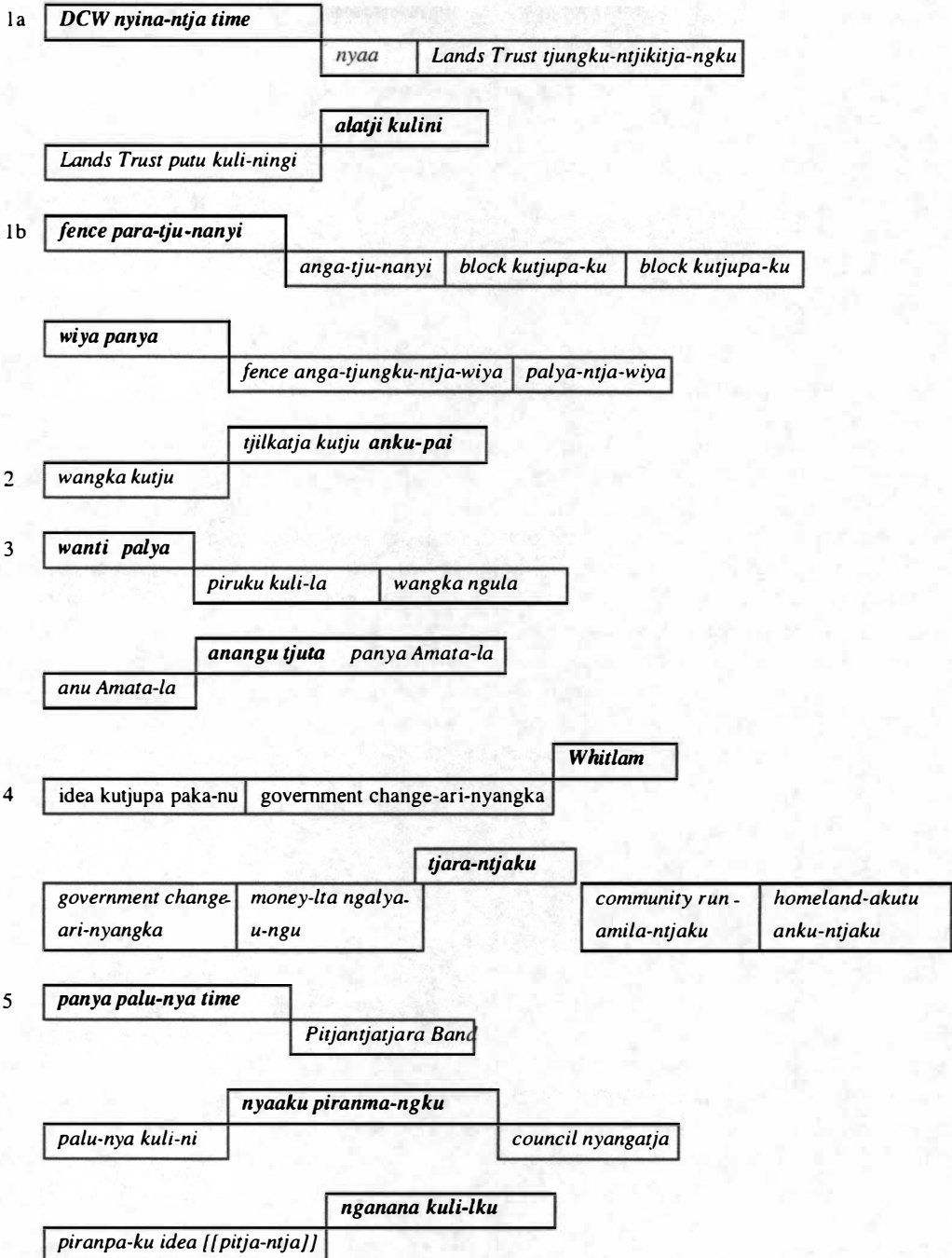


Figure 7.2: Information waves of Text [7:1]

The information wave of this text differs in several ways from that of the mythic narrative [3:5] analysed in Chapter 3. To begin with, several of the waves have a diminishing as well as culminative structure, including:

- i) waves 1a and 5, in which the marked News are thematic circumstances of Time, organising the text by temporal stages,
- ii) wave 1b which foregrounds the peoples' misunderstanding of the meaning of Lands Trust as a *fence*, and its correction *wiya panya*.

There are also several peaks that are interpersonal elements, including:

- i) *wiya panya* in wave 1b,
- ii) *wanti palya* in wave 3,
- iii) *nyaaku* in wave 5.

7.2.1.5 Interpretation of textual resources

While the logogenesis of the mythic narrative Text [3:4] developed as a very regular pattern of consequences, flowing from the actions and desires of mythic beings and people, that of Text [7:1] constructs a more complex historical model of emerging Anangu self-determination. The events' locations in time are foregrounded as Theme/News, as are features of reasoning and arguing, including initial misunderstanding, re-interpretation and critique of white ideas. The whites are told *wanti* 'leave it' while the people stay home to consider. The change in government policy from paternalism to community control is foregrounded and finally the people decide for themselves. This is only the opening segment of a long text describing the struggle for recognition of Anangu land rights, but it clearly exemplifies how historical events unfold as waves of New information with Anangu and whites and their agencies as the persistent Themes.

7.2.2 MOOD and MODAL ASSESSMENT

7.2.2.1 Text analysis

Mood choices in Text [7:1] are particularly relevant in the context of quoted locutions and ideas, enacting the speech roles of interactants in the projected exchanges. The other clauses in the text are all in indicative mood, since their function is information giving. In the following transcript, tone contours are indicated graphically over tonic elements, modal items are in bold face, and projected speech functions are labelled to the right. Tone contours for non-projected clauses are indicated where relevant. The enhancing clause complex of Stage 4 is not relevant to mood options and so is deleted to save space. Also deleted are the clause rank English translations, which are hopefully now unnecessary for the reader (refer back to glosses in §7.2.1.1 if necessary).

1α	DCW <i>nyina-ntja</i> time	// <i>paluru tjana panya</i>	<i>pitja-la tjapi-ningi</i>	<i>nyaa</i>
	DCW sitting time	they	coming were asking	what?

- 1"β *Lands Trust* *tjungku-ntjikitja-ngku* **bound request**
 Lands Trust to put-SM
- +2 *ka* *anangu tjuta-ngku* *panya* *Lands Trust* *putu* *kuli-ningi*
 and the people that Lands Trust unable were thinking
- +3 *ka* *-ya* *alatji* *kuli-ni*
 and they this way are thinking
- 3'1 *tjinguru* *fence* *para-tju-nanyi* // *anga-tju-nanyi*
 maybe fence are putting around are blocking **modalised statement**
- 3'2 *nyangatja* *block kutjupa-ku* // *nyangatja* *block kutjupa-ku*
 this a block for another this a block for another
- +4 *palu* *wiya* *panya* **committed negative response**
 but not that
- =5 *paluru tjana* *fence* *anga-tjungku-ntja-wiya* // *palya-ntja-wiya*
 they fence not blocking not making
- +6.1 *ka palulanguru* *paluru tjana* *starta-ra*
 and from then they3 starting
- 6"2.1 *wiya* *nganana* *wangka kutju* **negation; committed response**
 no we3 one language
- 6"2+2 *munu* *-la* *tjilkatja kutju* *anku-pai* **committed response**
 and we3 as one *tjilkatja* do travel
- +7.1 *ka palulanguru* *araltja-nu*
 and from then did finish
- 7"2.1 *wiya* *wanti* // *palya* **negation; command; comment**
 no leave it-! alright
- 7"2+2 *ka* *-la* *piruku* *kuli-la* **neutral suggestion**
 and we more think-!
- 7"2+3 *munu* *wangka* *ngula* **neutral suggestion**
 and talk-! later

+14 *ka panya palu-nya time*
and at that time

// *ngana-lu Barry Owen paluru watja-ningi Pitjantjatjara Band*
who? Barry Owen he was telling Pitjantjatjara Band

+15 *ka -la palu-nya panya kuli-ni*
and we that that is are thinking

+16 *munu kunyu "2 nyaaku piranma-ngku ini panya tju-nu*
and it's said why? whites this name did give

// *council nyangatja* **insistent nya-question**
this council

+17.1 *ka -la pala palu-la kuli-ni*
and we at that there are thinking

17'2 *nyanga palu-nya piranpa-ku idea pitja-ntja* **forceful statement**
this here a white's idea coming

+18.1 *ka -la kuli-ni '2 uti nganana kuli-lku* **insistent suggestion**
and we are thinking clearly we will think

7.2.2.2 TONE, MOOD AND MODAL ASSESSMENT selections

In general tone contours are unmarked for the speech functions of projections, the exceptions being:

16 tone 1+ on *nyaaku*, realising an insistent *nya*-question,

17'2 tone 1+ on *piranpa*, realising a forceful statement,

18'2 tone 1+ on *nganana* realising an insistent suggestion.

Significant tone contours other than in projected locutions and ideas include:

1α tone 4 on the marked Theme realising the sequence of marked Theme and Rheme (also in 14), and Tone 1 on the *nya*-element *nyaa*, realising a question the speaker poses himself 'what was it?',

4 & 5 tone 1- on *wiya*, realising a committed negation in response to the people's misinterpretation.

The MOOD and MODAL ASSESSMENT selections in projected locutions and ideas are summarised in the following Table 7.3, for easy analysis.

Table 7.3: Summary of MOOD choices in Text [7:1]

	locution or idea	speech function	speaker
1β	<i>Lands Trust tjungku-ntjikitja-ngku</i>	bound request	DCW
3'1	<i>tjinguru fence para-tju-nanyi // anga-tju-nanyi // nyangatja block kutjupa-ku // nyangatja block kutjupa-ku</i>	modal statement	<i>anangu tjuta</i>
6"2	<i>wiya nganana wangka kutju // munu -la tjilkatja kutju anku-pai</i>	negation and committed response	<i>anangu tjuta</i>
7"2	<i>wiya wanti // palya ka -la piruku kuli-la // munu wangka ngula</i>	negation, command and comment suggestion	<i>anangu leader</i>
16"2	<i>munu kunyu nyaaku piranma-ngku ini panya tju-nu council nyangatja</i>	insistent nya- question	<i>anangu tjuta</i>
17'2	<i>nyanga palu-nya piranpa-ku idea pitja-ntja</i>	forceful statement	<i>anangu tjuta</i>
18'2	<i>uti nganana kuli-lku</i>	insistent suggestion with high evidence	<i>anangu tjuta</i>

7.2.2.3 Interpretation of MOOD and MODAL ASSESSMENT selections

We can see at a glance in Table 7.3, how selections in MOOD and MODAL ASSESSMENT enact the interactants' subjectivity as the events unfold:

- 1 The force of the DCW's demand is diminished as a bound request.
- 3 The people respond to this request with modalised statements, as they attempt to reason about its meaning (In other words, reasoning is construed in the language as probabilistic, as in spoken and written English, see Halliday & Martin 1993, Painter 1996).
- 7 The Anangu leader of the meeting commands the whites to 'leave it' and suggests that we (the people) will 'consider their request further and talk again later'.
- 16 The people respond to 'Barry Owen telling Pitjantjatjara Band' with an insistent demand for an explanation of whites' right to name their council.
- 17 They state forcefully that this is 'a white's idea that's come'.
- 18 They make an insistent suggestion, modulated as highly obvious with *uti*, that 'clearly we must think about it'.

These interpersonal selections enact the evolving self-confidence and status of the people and their leader, as against that of the whites. Their initial confusion is modalised with *tjinguru*, next they begin to make committed responses with Tone 1- on *wiya*, their leader then makes neutral commands and suggestions, and finally the people are making insistent demands, statements and suggestions with Tone 1+.

In §2.4.1 above, we modelled the interpersonal prosodic structure of a clause in terms of amplification. The same kind of prosodic amplification occurs here, in the unfolding of the text as a whole, realising the people's growing status vis-a-vis the whites, through accumulating MOOD and MODAL ASSESSMENT choices, from initial low probability to final insistent demands.

7.2.3 TRANSITIVITY AND COMPLEXITY

7.2.3.1 Text presentation

The following presentation of Text [7:1] displays the transitivity roles below each clause element, and the logico-semantic relations between clauses to the left. In addition the field of each stage is identified in headings.

Text [7:1] TRANSITIVITY AND COMPLEXITY

Stage 1: misinterpretation of Lands Trust

1 α	DCW <i>nyina-ntja</i> time DCW sitting time Time	<i>paluru tjana panya</i> they Sayer	<i>pitja-la tjapi-ningi</i> coming were asking Process	<i>nyaa</i> what? Verbiage
1'' β	<i>Lands Trust</i> Lands Trust Token	<i>tjungku-ntjikitja-ngku</i> to put-SM Process		
+2	<i>ka anangu tjuta-ngku</i> and the people Senser	<i>panya Lands Trust</i> that Lands Trust Phenomenon	<i>putu</i> unable Process	<i>kuli-ningi</i> were thinking Process
+3.1	<i>ka ya alatji</i> and they this way Senser Quality	<i>kuli-ni</i> are thinking Process		
3'2	<i>tjinguru fence</i> maybe fence Goal	<i>para-tju-nanyi</i> are putting around Process	<i>anga-tju-nanyi</i> are blocking = Process	
3'3	<i>nyangatja</i> this Carrier	<i>block kutjupa-ku</i> a block for another Attribute:possess	3=3 <i>nyangatja</i> this Carrier	<i>block kutjupa-ku</i> a block for another Attribute:possess
+4.1	<i>palu wiya</i> but not Attribute	<i>panya</i> that Carrier		
=5	<i>paluru tjana</i> they Actor	<i>fence</i> fence Goal	<i>anga-tjungku-ntja-wiya</i> not blocking Process	<i>palya-ntja-wiya</i> = Process

Stage 2: reflecting on linguistic and cultural unity

+6.1	<i>ka palulanguru</i> and from then	<i>paluru tjana</i> they3 Sayer	<i>starta-ra</i> starting Process
6''2.1	<i>wiya</i> no Carrier	<i>nganana</i> we3 Carrier	<i>wangka kutju</i> one language Attribute

6''2+2	<i>munu</i>	<i>-la</i>	<i>tjilkatja kutju</i>	<i>anku-pai</i>
	and	we3	as one <i>tjilkatja</i>	do travel
		Actor	Role	Process

Stage 3: returning home

+7.1	<i>ka palulanguru</i>	<i>araltja-nu</i>
	and from then	did finish
		Process

7''2.1	<i>wiya</i>	<i>wanti</i>	<i>palya</i>
	no	leave it-!	alright
		Process	

7''2+2	<i>ka</i>	<i>-la</i>	<i>piruku</i>	<i>kuli-la</i>
	and	we	more	think-!
		Senser		Process

7''2+3	<i>munu</i>	<i>wangka</i>	<i>ngula</i>
	and	talk-!	later
		Process	Time

+8	<i>ka</i>	<i>paluru</i>	<i>a-nu</i>
	and	he	did leave
		Actor	Process

+9	<i>ka</i>	<i>nganana</i>	<i>nyina-ngi</i>	<i>Amata-la</i>
	and	we	were sitting	at Amata
		Carrier	Process	Attribute:place

=10	<i>anangu tjuta panya</i>	<i>nyina-ngi</i>	<i>Amata-la</i>	<i>nyina-ra nyina-ra</i>
	people that is	were sitting	at Amata	sitting sitting
	Carrier	Process	Attribute:place	Duration

Stage 4: political change

11	<i>palulanguru</i>	<i>idea kutjupa</i>	<i>paka-nu</i>
	from then	another idea	did arise
		Actor	Process

=12 α	<i>panya</i>	<i>DAA</i>	<i>starta-ra workari-ngi</i>
	that	DAA	starting was working
		Actor	Process

12x β	<i>government</i>	<i>change-ari-nyangka</i>	<i>Whitlam</i>
	government	having changed	to Whitlam
	Carrier	Process	Attribute

13x β	<i>government paluru</i>	<i>change-ari-nyangka</i>
	that government	having changed
	Carrier	Process

- 13α *tjana starta-ra community-nya money-lta ngaly-u-ngu*
 they starting community money-at that did give
Actor Pro- Recipient Goal -cess⁸
- 13xy *tjara-ntjaku*
 to divide up
Process
- 13δ.1 *anangu tjuta-ngku community run-amila-ntjaku*
 the people the communities to run-SW
Actor Process Goal
- 13δ+2 *uu homeland-akutu anku-ntjaku*
 or to homelands to go
Place: towards Process

Stage 5: self-determination

- +14 *ka panya palu-nya time ngana-lu Barry Owen paluru watja-ningi*
 and at that time who? Barry Owen he was telling
Time Sayer Process
- Pitjantjatjara Band*
Pitjantjatjara Band
Verbiage
- +15 *ka -la palu-nya panya kuli-ni*
 and we that that is are thinking
Senser Phenomenon Process
- +16 *munu kunyu (∅)*
 and it's said
 (ellipsed verbal Process)
- 16"2 *nyaaku piranma-ngku ini panya tju-nu council nyangatja*
 why? whites this name did give this council
Reason Assigner Identifier Process Identified
- +17.1 *ka -la pala palu-la kuli-ni*
 and we at that there are thinking
Actor Time Process
- 17'2 *nyanga palu-nya piranpa-ku idea [[pitja-ntja]]*
 this here a white's idea coming
Carrier Attribute
- +18.1 *ka -la kuli-ni*
 and we are thinking
Senser Process

⁸ The complex Process in line 13 of text 7.1 is distributed across the clause, with the non-finite phrasal verb *starta-ra* following the Theme and the lexical verb *ngaly-u-ngu* at the end. This is a highly unusual pattern in Western Desert, and may reflect indeterminacy of the grammatical role of the dependent verb *starta-ra*, since it is borrowed from English. Western Desert does not have such an indigenous system for phasing processes, except for circumstances of completed Duration (§5.5.1.1b).

18'2	<i>uti</i>	<i>nganana</i>	<i>kuli-lku</i>
	clearly	we	will think
	Senser		Process

7.2.3.2 Transitivity choices

The transitivity choices in the Stage 1 of the Text illustrate the nature of the people's confusion about the Land Trust, as follows:

- 1"β What the DCW came and asked was to assign an **identifying** process 'to put (the name) Lands Trust [Token] (on the land [Value])', *Lands Trust tjungku-ntjikitja-ngku*.
- +2 The people misunderstood the transitivity role of Lands Trust, *anangu tjuta-ngku panya Lands Trust putu kuli-ningi*.
- 3'1 What they thought the whites intended was a **material** process 'to put a fence [Goal] around, blocking off (the land [Goal])', *tjinguru fence para-tju-nanyi angatju-nanyi*.
- 3'2 The people thought the result would be a **possessive** relation 'this [Carrier] is a block for one person [Attribute], this [Carrier] is a block for another [Attribute]', *nyangatja block kutjupa-ku nyangatja block kutjupa-ku*.
- =5 However the speaker makes it clear that a material process was not intended, 'they [Actor] were not blocking, not making a fence [Goal]', *paluru tjana fence angatjungku-ntja wiya palya-ntja wiya*.

Once the intended transitivity is understood by Stage 3, the question of identification and attribution becomes contentious rather than confusing.

- +14 In a **verbal** process, a government agent acts as Sayer 'Barry Owen [Sayer] was telling (the name) Pitjantjatjara Band [Verbiage]', *ngana-lu Barry Owen paluru watja-ningi Pitjantjatjara Band*. (The title 'band' is derived from anthropology, i.e. Owen is attempting to impose a term from ethnological discourse on what the people see as a political entity).
- +16 The people interpret this as a **caused identifying** process, and demand to know 'why [Reason] whites [Assigner] are putting a name [Token] to their council [Value]', *munu kunyu nyaaku piranma-ngku ini panya tju-nu council nyangatja?* It is significant therefore, that in caused identities, attributes and reactions in Western Desert, the Assigner, Attributor or Inducer is the active participant, i.e. the one in control.
- 17'2 The people **classify** 'this [Carrier] (as a one of the class of) white men's ideas [Attribute]', *nyanga palu-nya piranpa-ku idea pitja-ntja*.
- 18'2 They consider such a **mental** process to be their own right, 'clearly we [Senser] will think', *uti nganana kuli-lku*.

All of these processes of negotiating meaning, and the rights to name, classify and consider, are construed by mental and verbal projections in which Anangu are Sensers and Sayers, i.e. social process of '(mis)understanding' (Stage 1), 'saying' (Stages 2 & 3), and 'considering' (Stage 5).

The exceptions are where government agents are Sayers, e.g. ‘DCW’ in line 1, and ‘Barry Owen’ in 14. But it is noteworthy that i) what they say is not quoted, but merely reported 1”β *Lands Trust tjungku-ntjikitja-ngku*, or named +14 *Pitjantjatjara Band*, and that ii) what they say is only presented as subject matter for Anangu to consider.

In Stage 4, the new Whitlam government, and/or the Department of Aboriginal Affairs that Whitlam created, is Actor in a dispositive process of which Anangu are Recipients of money, 13α *tjana starta-ra community-nya money-lta ngaly-u-ngu*. The purpose of this is so that Anangu become Actors in material processes of ‘dividing it up’, ‘running their communities’ and ‘going to their homelands’.

In sum the transitivity choices in Text [7:1] construe processes of awakening active self-determination amongst Anangu, as Sensors, Sayers and Actors.

7.2.3.3 Complexity choices

The contribution of complexity to this construal of experience is brought out clearly in the following Table 7.4. Finite and projecting clauses are in the right hand column, while projection and non-finite expansions are to the left.

Relations between clauses and clause complexes on the left are of three types, additive (e.g. +2 *ka-switch* Medium), contrastive (e.g. +3 *ka-same* Medium), adversative (e.g. +4 *palu*), specifying (e.g. =5 polarity concord) and cohesive (+6 *ka palulanguru*). Cohesive conjunctions relate whole text segments, staging the historical recount in terms of temporal succession.

Relations between left and right columns are either verbal projection (e.g. 1”β), mental projection (e.g. +2’2) or enhancement (e.g. 12xβ). These projections and enhancements may themselves be expanded, by elaboration (e.g. 3 ‘2 =3), addition (e.g. 6 “2 +3) or enhancement (13 xγxδ).

Table 7.4: Projections and hypotactic expansions in Text [7:1]

Stage 1

1 α <i>DCW nyina-ntja time paluru tjana panya pitja-la tjapi-ningi nyaa</i>	“β <i>Lands Trust tjungku-ntjikitja-ngku</i>
+2 <i>ka anangu tjuta-ngku panya Lands Trust putu kuli-ningi</i>	
+3 <i>ka ya alatji kuli-ni</i>	‘2 <i>tjinguru fence para-tju-nanyi anga-tju-nanyi</i> ‘3.1 <i>nyangatja block kutjupa-ku</i> =2 <i>nyangatja block kutjupa-ku</i>
+4 <i>palu wiya panya</i>	
=5 <i>paluru tjana fence angatjungku-ntja-wiya palya-ntja-wiya</i>	

Stage 2

+6 <i>ka palulanguru paluru tjana starta-ra</i>	“2 <i>wiya nganana wangka kutju</i> +3 <i>munu -la tjilkatja kutju anku-pai</i>
---	--

Table 7.4 (continued): Projections and hypotactic expansions in Text [7:1]

Stage 3

+7 <i>ka palulanguru araltja-nu</i>	“2 <i>wiya wanti palya</i> +3 <i>ka -la piruku kuli-la</i> +4 <i>munu wangka ngula</i>
+8 <i>ka paluru a-nu</i>	
+9 <i>ka nganana nyina-ngi Amata-la</i>	
=10 <i>anangu tjuta panya nyina-ngi Amata-la, nyina-ra nyina-ra</i>	

Stage 4

11 <i>palulanguru idea kutjupa paka-nu</i>	
=12 α <i>panya DAA starta-ra workari-ngi</i>	$x\beta$ <i>government change-ari-nyangka Whitlam</i>
=13 α <i>tjana starta-ra community-nya money-lta ngaly-u-ngu</i>	$x\beta$ <i>government paluru change-ari-nyangka</i> xy <i>tjara-ntjaku</i> $x\delta.1$ <i>anangu tjuta-ngku community run-amila-ntjaku</i> $\delta+2$ <i>uu homeland-akutu anku-ntjaku</i>

Stage 5

+14 <i>ka panya palu-nya time ngana-lu Barry Owen paluru watja-ningi Pitjantjatjara Band</i>	
+15 <i>ka -la palu-nya panya kuli-ni</i>	
+16 <i>munu kunyu</i>	“2 <i>nyaaku piranma-ngku ini panya tju-nu council nyangatja?</i>
+17 <i>ka -la pala palula kuli-ni</i>	‘2 <i>nyanga palu-nya piranpa-ku idea pitja-ntja</i>
+18 <i>ka -la kuli-ni</i>	‘2 <i>uti nganana kuli-lku</i>

In Stage 1, projections include the reported request 1” β *Lands Trust tjungku-ntjikitja-ngku*, and the quoted ideas 3’2 *tjinguru fence para-tju-nanyi, angatju-nanyi*.

In Stage 2, projections are quoted verbal propositions: clause 6 *wiya nganana wangka kutju, munu-la tjilkatja kutju anku-pai*. In stage 3, they are quoted verbal proposals: clause 7 *wiya wanti palya, ka -la piruku kuli-la, munu wangka ngula*. Note that in clauses 6 and 7 the projecting verbal processes are implicit. In 6 the process is simply *starta-ra* ‘starting (to say)’, in 7 it is *araltja-nu* ‘finished (by saying)’.

In Stage 4, enhancements include time $x\beta$ *government change-ari-nyangka* ‘when the government changed’, and purpose xy *tjara-ntjaku* ‘to divide up’ $x\delta$ *anangu tjuta-ngku community run-amila-ntjaku* ‘for Anangu to run the communities’.

In stage 5, the projections are a verbal demand, 16 *nyaaku piranma-ngku ini panya tju-nu council nyangatja?* and ideas, 17 *nyanga palu-nya piranpa-ku idea pitja-ntja* and 18 *uti*

nganana kuli-lku. Note that in 16 the verbal process is implied by the reportative Adjunct *kunyu* 'it's said'.

The complementary functions of extension, elaboration, enhancement, projection and cohesive conjunction are evident in this presentation. Additive relations construct the activity sequence as a series of steps, which cohesive conjunctions organise into stages. Contrastive, alternating and elaborating relations expand certain of these steps, providing more information about the event that is an alternative view or more specific. Within each of these steps and expansions, a projection may be nested if it is a mental or verbal activity, or an enhancement may be nested if it is a material event.

7.2.4 Texture

The texture of Text [7:1] is created by the interaction of resources from each of the systems described above. The resources of COMPLEXITY complement those of TRANSITIVITY to construe the field of the text as an activity sequence of actions, significations and relations. The main Sensors, Sayers and Actors in the sequence are Anangu, and they are construed as becoming more aware and active as each stage of the text unfolds.

These ideational resources also complement those of IDENTIFICATION and THEME to construct an activity sequence that is cohesive by means of thematic participant identification, switching back and forth between Anangu and white protagonists, and structured into discrete temporal stages by means of circumstantial and logical Themes.

Thirdly the resources of MOOD and MODAL ASSESSMENT interact with those of TRANSITIVITY, COMPLEXITY, IDENTIFICATION and THEME to construe the growing status of the people vis-a-vis their white antagonists in each step and stage of the text, as a prosody of amplifying affect.

Finally the resources of INFORMATION DISTRIBUTION and INFORMATION FOCUS complement each of these other resources by organising the steps and stages of the activity sequence into waves of informational prominence. The peaks of this wave foreground the temporal staging, as well as the ideational features of reasoning and arguing, and interpersonal ones of demands and responses.

7.2.5 Register, genre and ideology

Briefly, the mode of Text [7:1] is totally field constituting; it recounts an activity sequence from the past without reference to the situation of speaking, and is internally strongly cohesive. It depends on some field knowledge that may not be available to all potential listeners, but this is true of any field-constituting text. The field of the text is the emerging political response of the Pitjantjatjara people to contemporary forms of colonisation, construed as sequences of actions, relations, saying and thinking in which the people are the most active participants. Its tenor unfolds with the events, amplifying the status of the people as they become more familiar with the field and are able to evaluate it in their own terms, and assert themselves in it.

At the level of genre, the text instantiates an historical recount, i.e. a recounted activity sequence of socially significant events that is organised into discrete stages by means of circumstantial Themes. The participants of the recount are specific individuals or groups, and sometimes abstractions such as ideas and names for institutions such as *Pitjantjatjara Band* or *council nyangatja*.

This genre is a feature of traditional Western Desert culture, a resource for recording and recounting significant sequences of events in the life of the people. Its grammatical resources are all part of the pre-colonial repertoire of the language, but its field is modern. As a result there are a range of lexical items that are derived from English, including such concepts as *Lands Trust*, *fence*, *block*, *government* and so on. In addition there are some lexico-grammatical items that are derived from English, although they have equivalents in Western Desert, such as:

- i) *DCW nyina-ntja time*, substituting *time* for the Western Desert *ara*, possibly because of connotations of exact temporal location in the English word;
- ii) *change-ari-*, substituted for Western Desert *kutjupa-ri-*, literally 'becoming different', possibly because its context is the white institution of *government*.

At the level of ideology, Text [7:1] encodes an emerging anti-colonialist ethic, in which state agencies and their agents are construed as potentially manipulative, and Anangu are learning to critique and overturn unequal power relations on their own terms. The people's proposition in Stage 2 that 'we are one language and we travel as one *tjilkatja*' indicates that they are framing their response to colonialism in terms of their own traditional political unity. The criteria for this political unity are linguistic and religious. It is grounded in a common language and in the initiation and betrothal ceremonies, the *tjilkatja*, that binds the Western Desert peoples into a single culture.

DCW nyina-ntja time was a period of state paternalism in which Anangu had no control over the management of their communities, and little control over their own movements. This system came to an end with the social reform program of the Whitlam Labor government in 1973 to 1975, from which the Northern Territory Land Rights Act was also a product. The policy change enabled Anangu leaders to incorporate their communities, participate in the allocation of Commonwealth funds to them, *tjara-ntjaku*, and to use these funds to run their communities as they saw fit, employing non-Aboriginal staff to work under their direction. It also enabled them to initiate the movement to establish residential communities in their traditional homelands. The experience of control at the community level then enabled them to engage with the state political system and win legal recognition of their traditional land title in 1981. They achieved this at the time with the assistance of white community advisers and interpreters (see full text in Appendix 1), but the next stage of their plan for self-determination and self-management is to acquire the literate English resources to manage their affairs without the help of outsiders.

7.3 Resources for meaning in Western Desert and English: variations on common ground

In the comparisons of resources in Western Desert and English in each chapter of the survey, we have focused on functional and realisational variation between the languages. But the discussion of differences in each region assumes common ground that this variation stands in contrast against. As well as differences, the tabulated comparisons at the end of each chapter clearly display the extent to which the Western Desert and English languages share not only the same overall sets of functional regions, but also comparable organisations and ranges of options in these regions, as well as similar strategies for realising functions, as phonological, lexicogrammatical and discourse semantic structures. In other words the

commonalities are in three dimensions of the languages: their paradigmatic organisation, their syntagmatic realisation and their functional relations to social contexts.

The greatest degree of commonality in each functional region is in the more general semantic options realised at higher grammatical ranks. As we move further in delicacy and lower in rank, more significant differences begin to emerge. This is predictable from a phylogenetic perspective since the more delicate the option in meaning, and the lower the grammatical rank, the more open features are to change (see Halliday & Matthiessen *in press*). So for example, languages that are closely related, with an identical range of semantic options, may nevertheless have very different group rank structures, forms of words, or systems of phonetic articulation. It is significant therefore that Western Desert and English share many functional options and realisational strategies at word and group ranks, and many more at clause rank.

The extent of broad commonalities between the languages cannot be easily dismissed as random convergence. There is no *a priori* reason why genetically unrelated languages should coincide in so many ways, since within general parameters such as metafunction, stratification and rank, indefinitely many possible ways of meaning can be imagined, a point that Halliday (1994a:108) makes about the construal of happenings in the English transitivity system:

Imagine that we are out in the open air and that there is movement overhead. Perceptually the phenomenon is all of a piece; but when we talk about it we analyse it as a semantic configuration - something we express as, say, *birds are flying in the sky*. This is not the only possible way of organising such a fragment of experience; we might have turned it into a meaning structure - 'semanticized' it, so to speak - quite differently. We might have said something like *it's winging*.

Halliday's point is that even though *it's winging* is possible, we do not analyse the event in this way in English. My point here is that we do not analyse it like this in Western Desert either, we analyse it like English does, as a participant involved in a process associated with a circumstance, realised by the same configuration of verbal and nominal groups *tjulpu tjuta ilkari-ngka parpaka-ni*, i.e. 'birds in the sky are flying'. Likewise Western Desert could have evolved completely different ways from English of organising text by identifying, thematising and focusing elements, but it has not; the general functions, options and realisations of each region in both grammars are broadly comparable.⁹ As discussed in §1.3.2

⁹ It may be objected on one hand that the functional commonalities between Western Desert and English are a product of universal communicative pressures, of the human articulatory, auditory and neural systems interacting with their social and material environment. This is undoubtedly the case to a great extent, and is predicted by the general SFL theoretical categories of metafunction, axis, stratification, delicacy and rank. General functional requirements of any language for construal, enactment and presentation are predictable, as are more delicate functions, such as categorisation of perceptual phenomena, and exchanges of material or symbolic commodities. The organisation of languages into paradigmatic and syntagmatic axes is also predictable, given the organisation of the human central nervous system into sensory (auditory), interpretative (cortical) and motor (articulatory) functions. Stratification and ranking are also predictable, given the multi-layered functioning of the human thalamo-cortical system described by Edelman (1992).

This is already a far more elaborate empirical model of the neurophysiological basis for language than the formalist machine metaphor of a 'universal hard-wired language acquisition device'. However neurophysiological evolution still does not seem to be an adequate explanation in itself for so many commonalities in both micro-functions and forms of realisation between Western Desert and spoken English. There are many possible ways of realising each type of function, such as Halliday's hypothetical experiential example, but also empirical examples, such as the strategy of tonal contrasts to realise experiential contrasts in the so-called 'tone languages' of east Asia, or the use of lexical 'topic markers' to realise experiential Themes in languages such as Japanese and Tagalog (c.f. comparisons of features in English and Chinese in Halliday & Matthiessen 1999). Within English itself, new lexicogrammatical

above, Halliday (1993:10) provides an historical-material explanation for the many functional commonalities observable between languages of hunter-gatherer and stratified cultures, that

...a settlement grammar has evolved through a non-settlement grammar... features of the earlier phase persisting in very much the same way as features of the earlier material conditions continue to be part of the total experience.¹⁰

On the other hand, the evolution of many of the functional variations described in each chapter of the *Western Desert Code* can be attributed to contextual pressures that vary between the cultures, including variations in register, genre and coding orientation. These types of contextual variation were discussed in §1.3 and §1.4 above, and are briefly sketched in Table 7.5 below. As in the comparative summaries of resources in each chapter, each contextual domain is referenced to the relevant sections of the *Western Desert Code* (WDC) on the left, and on the right to Martin's (1992) *English Text* (ET).

strategies have evolved such as the ordering of Subject and Finite to contrast declarative and interrogative moods, as well as Theme predication and identification to conflate Theme with New, which in writing compensate for the lack of intonation. However before it evolved a written mode, English shared the same realisational strategies with Western Desert in these functional regions, such as first position to realise Theme, tonic focus to conflate Theme with New, and falling-rising tone contrast to distinguish declarative and yes-no interrogative, and all these are still a part of its repertoire of realisational strategies.

On the other hand it may be objected that the languages look similar because I have simply imposed the functional categories of English on Western Desert. This may be so to some extent, and it is very difficult to prove otherwise to readers who do not speak Western Desert as a first or second language, but there are two arguments against this interpretation. One is that I have identified not only broad commonalities, but also a great many functional and realisational differences between the languages. The other is that to do so, as I explained in Chapter 1, I have rigorously sifted through the description over many re-drafts, re-organising and re-classifying features as I analysed natural spoken texts and found counter-examples that functioned differently from my expectations as a speaker of both languages.

¹⁰ Halliday's (1993) historical-material perspective on phylogenesis helps to explain the extent of functional commonality between Western Desert and English grammars, since the latter has evolved from a 'non-settlement' grammar of nomadic pastoralists, only within the last two millennia (Mallory 1989, Gimbutas 1990, Cavalli-Sforza et al. 1994). However other explanations may be required to explain the extent of commonality in realisational strategies for these common functions, since structural realisations can vary widely between languages and language phyla. This may be an indication, as some historical linguists claim, that all languages share a common history that is still observable in the structures as well as functions of modern languages (Greenberg 1987, Ruhlen 1991, 1994, Gamkrelidze & Ivanov 1990), an hypothesis that is increasingly supported by palaeoanthropological evidence (Whallon 1992, Stringer & McKie 1996), and genetic evidence (Cavalli-Sforza et al. 1994). For expanding our understanding of the origins of language and culture, and the historical relationships between the world's peoples, this is a very exciting possibility. Systemic functional descriptions offer the most powerful set of linguistic tools available for testing this hypothesis.

Table 7.5: Comparison of contextual variation in Western Desert and English.

WDC 2.4.1	Register	ET 7.2
<p>Mode: spoken only, varying from field-accompanying to field-constituting.¹¹</p> <p>Tenor: determined by kinship: equal status between peers/ variable status between elders and juniors; close contact: solidarity implicit/ distant contact: solidarity explicit (e.g. between in-laws).</p> <p>Field: finite stable set of social and material contexts (pre-colonial); fluctuating between gathering and dispersal of groups; strong classification between men's and women's modes of production and social and religious activity.</p>	<p>Mode: spoken varying from field-accompanying to field-constituting/ written varying from speech-like to highly technical and abstract.</p> <p>Tenor: determined by kinship, socio-economic class and institutional position. For example professionals negotiate with each other, and explain instructions to trained workers, who command unqualified workers (Rose et al. 1992, Rose 1997).</p> <p>Field: vast dynamic range of specialised fields organised by hierarchical institutions; strongly classified by education level and income.</p>	
WDC 2.4.3.3	Genre	ET 7.3
<p>Field structured: activity sequences such as recounts and narratives: personal/ historical/ mythical; procedures typically accompanying field.</p> <p>Tenor structured: varying from minimally regulated conversations with prosodic unfolding structures, to more regulated structures of <i>alpiri</i> and formal meetings of elders.</p> <p>Mode structured: highly regulated structures of ceremonies, from small local rituals to major ceremonial sequences such as <i>tjilkatja</i>.</p>	<p>Field structured: activity sequences including recounts, narratives, explanations, procedures; non-activity structured including descriptions and compositional/ classifying reports.</p> <p>Tenor structured: from minimally regulated casual conversation, through commercial transactions, to bureaucratic memoranda.</p> <p>Mode structured: institutional, religious and social rituals, e.g. parliament, court, church, school lessons, clubs, concerts, etc.</p>	

¹¹ As discussed in §1.3.4 in Chapter 1, no written mode has yet evolved in Australian languages, there are only orthographies produced by linguists as an alternative form of articulation to phonemes.

Table 7.5 (continued): Comparison of contextual variation in Western Desert and English.

WDC 2.4.3.4	Coding orientation	ET 7.4
Predominant organising principle is 'egalitarian mutuality' between affinal groups, with status variation between agnates.	Predominant organising principle is socio-economic stratification, evolving out of feudalism, patriarchy and colonialism.	
Education reproduces 'shared competences'.	Education reproduces 'specialised competences'.	
Access to coding orientations determined by age ranking:	Access to coding orientations determined by class, ethnicity, age, gender.	
Children's coding orientation: context dependent, subjective and concrete.	Dominated coding orientation: as per children's and adults' orientations in Western Desert, together with intergenerational effects of domination.	
Adults' coding orientation: independent of specific contexts, objectified from immediate interactions, and generalised.	Dominating coding orientation: highly elaborated, technicalising and abstracting, realised by features of the written mode, particularly ideational metaphors, which are not taught to children from dominated groups.	
Elders' coding orientation: elaborated, more generalising and abstracting, facilitating reflection on and management of the social system as a whole		

These comparisons of contextual variation between the Western Desert and English codes foreground the consequences of ideological contrasts between egalitarian and stratified codes, and the influence of an increasingly specialised division of labour on the phylogenesis of the English code. Socio-economic stratification is the motivating principle of this specialisation, i.e. the primary option for specialisation in stratified societies is between production and administration. Stratification produces discursive pressures on its administration and reproduction that have led, for example, to the evolution of a written mode, and of a pedagogic device that continues to reproduce a stratified workforce, despite an overt educational philosophy of 'equal opportunity' (see Rose et al. 1992, Rose 1997, 1999, on language, education and industrial stratification). In systemic terms, social stratification is realised by an additional option in tenor of equal/unequal relations between peers and families. Specialisation of fields has produced a number of additional options in genre, including text types such as reports and explanations, arguments and discussions. These in turn produce diversifications in linguistic functions in regions such as theme and information, relational clauses, logico-semantic relations and objectification of interpersonal meanings. There is no way that these developments can be construed as in any way 'better' than the older ways of acting, interacting and meaning in indigenous cultures, unless one adopts a blinkered Eurocentrism, but they are unquestionably more elaborate, and unfortunately more powerful, resources for controlling the social and natural worlds.

The cryptogrammar of Western Desert shares all of the potential resources of languages such as English, for reconstruing subjective experience-as-process into virtual experience-as-thing, through transcategorisation and embedding of clauses. It also has the same potential for developing elaborate resources for objectifying and grading interpersonal assessments, and possibly also for realising textual contrasts by lexicogrammatical strategies. These developments have not occurred in the language because there have not been the contextual

pressures for doing so, at least until recently. Even now, despite sixty years of 'vernacular literacy' schooling there is little evidence that the language is developing new lexicogrammatical resources associated with a written mode, except for the option of borrowing lexical items from English, exemplified in Text [7:1] and other examples throughout the survey. Rather Anangu communities have expressed clearly that they wish their children to learn the resources of written English discourse, so that they can use them in those institutional contexts in which they have evolved. Their aim is not simply for their children to become bilingual, but bi-codal: they will use English in the institutional domains of community service delivery, administration, politics and training, and use their mother tongue in the home, in the kin system and in the Law. There is no question in their minds that the latter contexts are of greater value than the former, and no reason why their own language should ever be replaced in these contexts by English.

Discussing the nature of history some years ago with the speaker of Text [7:1], Ivan Baker, I noted that European culture construes the past as a linear sequence of events stretching back in an ordered fashion to distant times. Ivan explained that the Anangu model of the past was cyclic: as alternate generations came and went, their memory gradually faded, but the Dreaming continued from immemorial time, continually re-manifesting in the cycles of seasons and human generations. Today however, he explained, the cycles of Anangu society have entered the linear time of history, and in the process the communities are in danger of losing control over the transmission of their culture. For Anangu to seize power over their history and their destiny they need to win control over the discourses in which history and destiny are authored in the modern world. It is my heartfelt hope that this volume will make some small contribution to making that happen.

Appendix 1

The Anangu Pitjantjatjara land rights campaign

Narrated by Ivan Baker AM

Transcribed and translated by David Rose

- 1 *DCW nyinantja time, paluru tjana panya pitjala tjapiningi nyaa Lands Trust
tjungkuntjikitjangu*
in DCW days, they were coming and asking about putting the land in a Lands Trust
- 2 *ka anangu tjutangku panya Lands Trust putu kulinigi*
but many people couldn't understand that Lands Trust
- 3 *ka ya alatji kulini 'tjinguru fence para-tjunanyi, angatjunanyi, nyangatja block
kutjupaku, nyanga block kutjupaku*
and were thinking thus 'maybe they're putting a fence around it, blocking it off, a
block here and a block there'
- 4 *palu wiya panya, paluru tjana fence angatjungkuntja wiya, palyantja wiya*
but that was not correct, they were not fencing it off, not building a fence
- 5 *ka palulanguru paluru tjana starta "wiya, nganana wangka kutju, munula tjilkatja
kutju ankupai*
and at that point they said "no, we are one language and we go on one *Tjilkatja*"
- 6 *ka palulanguru araltjanu (?) "wiya, wanti palya, ka la piruku kulila, munu wangka
ngula*
and then replied "no, leave it for now, and we'll think more and talk about it later"
- 7 *ka paluru anu, ka nganana nyinangi, panya nganana nyinangi, Amatala, anangu
tjuta panya nyinangi, Amatala, nyinara nyinara*
so DAA went and we stayed, that is we were at Amata, many people were at Amata,
living there a long time
- 8 *palulanguru idea kutjupa pakanu, panya DAA startara workaringi, government
change-arinyangka, Whitlam,*
then another idea came up, when DAA started to work, when the government had
changed to Whitlam

- 9 *government paluru changarinyangka, tjana startara community-nya money-lta ngaly-ungu, tjarantjaku, anangu tjutangku community runamilantjaku, uwa homeland-akutu ankuntjaku*

when that government changed, they started to give the money to the communities, to divide it up for the people to run the communities, or to go to the homelands

- 10 *ka panya palunya time, nganalu, Barry Owen, paluru watjaningi "Pitjantjatjara Band"*

at that time, Barry Owen from DAA was saying "Pitjantjatjara Band"

- 11 *ka la palunya panya kulini, munu kunyu "nyaaku piranmangku ini panya tjunu, Council nyangatja?"*

and we thought about it, and people said "why are whitefellers putting that name on this council?"

- 12 *ka la pala palula kulini 'nyanga palunya piranpaku idea pitjantja'*

at that we thought 'this is a whitefellers' idea that's come'

- 13 *ka la kulini 'uti nganana kulilku*

and we thought 'clearly we should decide'

- 14 *munu palulanguru, nganana panya 1976, panya football carnival startaringu, Amatala, July-ngka*

so from there, in 1976 the football carnival started in Amata in July

- 15 *ka nganana pala palula kuwaripangka, sports weekend kuwaripangka, nganmantju telegram iyanu, Ushmalu ngali, nyaaku panya, equipment nganana yaltjiyaltjingku alpamilara, ungkula, ungkuntjaku, panya ngapartji ngapartji workarintjaku, community wingkingka,*

but just before that, before the sports weekend, we sent a telegram, Ushma and I, about how to help each other with equipment, to share it, so that we could work in turn, in each community

- 16 *panya tjinguru community kutjupa tjutangku machine panya wiru kanyini, ka la kuliningi 'nganana panya tjinguru wiya'*

that is maybe some communities had good machines, and we were thinking 'maybe we don't'

- 17 *munu la ngatjintjikitjangku kulini 'nganana grader or front-end loader, palunya tjananya tjungkuntjaku, nyaa palyantjaku, tjinguru tip-truckangka munu katira wanitjaku, pala palunya tjananya*

so we were thinking about borrowing equipment, about getting graders or front-end loaders and so on, to build things, maybe to load tip-trucks and dump earth, those sorts of things

- 18 *ka palulanguru football-aku pitjangu*

then they all came for the football

- 19 *ka meeting panya ngarangu, nyara wiyaringkunyangka, malangka, mungawingki kutjupa*

and that meeting happened, when the football finished, afterwards, the next morning

- 20 *palulanguru ngura wingkitja ya pitjangu, mungangka*
people from every place came, that night
- 21 *munu palulanguru nyinakatira meetingka wangkangi*
and sat down to talk at the meeting
- 22 *mungawingkilta meetingi startaringu*
that morning the meeting started
- 23 *ka watjanu "meeting panya runamilantjaku, ngananya nyura Chairman*
tungkuntjikitja mukuringanyi?"
and (the leader) said "in order to run this meeting, who do you want to put as
Chairman?"
- 24 *pala tjana "Kukinya"*
they said "Kuki"
- 25 *munu palulanguru Secretary tjunu,*
then they put up a Secretary
- 26 *munu palulanguru watjanu "Minutes Secretary"*
and then it was said "Minutes Secretary"
- 27 *ka la watjanu "Bill Edwards"*
so we said "Bill Edwards"
- 28 *ka palulanguru palunya tjunu*
so we put him up
- 29 *ka paluru tjapinu, watjanu, startara watjanu "Council nyangatja nyura nyaa*
wangkanyi?"
and he asked, beginning he said, "what are you calling this council?"
- 30 *ka ngayulu watjanu "Pitjantjatjara Council", panya ngayulu kulini nyara*
Pitjantjatjara Band-nguru, kampa kutjupara pitjantja, Pitjantjatjara Council
tjungkuntjikitja
and I said "Pitjantjatjara Council", because I was thinking from that Pitjantjatjara
Band, coming in from the other side, to put Pitjantjatjara Council
- 31 *munu ya Pitjantjatjara Council wangkangu*
and they agreed on Pitjantjatjara Council
- 32 *ka watjanu "uwa, tjananya nyura nyaa wangkanyi?"*
and it was said "yes, what business are you talking about?"
- 33 *ka piruku ngayulu wangkangu "Lands Trust", panya palulangurulta ngayulu*
kuliningi, panya DCWngku pitjala wangkangi "Lands Trust", nganananya
ungkuntjikitjangku, palulanguru ngayulu wangkangu "Lands Trust"
and I again said "Lands Trust", because I was thinking from when DCW came and
talked about "Lands Trust", to give us title to the land, that's why I said "Lands
Trust"

- 34 *panya palulanguru nganana, meeting uwankara wiyaringkula, paluru piranpanya kutjupa tjuta workaringi, Community Adviser, munu paluru tjana nganananya workaringi “kulila, panya Lands Trust nyangatja nyuntunya unganyi, 99 year lease”*

from there, when the meeting had finished, there were some whitefellers working as Community Advisers, they were working for us and said “listen, this Lands Trust will give you a 99 year lease”

- 35 *ka la nganana ngurpangka panya, nganana anyway watarku-wangkangu panyatja*
and we were in ignorance, we had talked without understanding it

- 36 *ka la kulinulta ‘uwa!’, watjanu “kutjupa nyaa?”*

so we thought ‘yes’, and said “what other way is there?”

- 37 *ka watjanu “ka kutjupa Land Rights nyangatja, nyuntumpa alatjitu, nyuntumpa tjitutjaraku alatjitu, nyuntu tjitutjarangu runamilantjaku*

and it was said “another way is with this Land Rights, it would be completely yours, yours forever, for you to run always”

- 38 *ka la watjanu “muntauwa, tjinguru nyanga palumpa la nganana kulilku”*
and we said, “aha, maybe we should think about this”

- 39 *panya Mike Lastanya, Tungku Tregenza, Ushmanya, Glendlenga, paluru tjana nganananya workaringi, munu paluru tjana nganananya alpamilara wangkangi, nganmantju*

it was Mike Last, Tungku Tregenza, Ushma, Glendle, they were working for us, helping by talking, in the beginning

- 40 *ka la pala palulanguru nganana startaralta wangka, panya ngayulu kulini “tjinguru nyaa tjukutjuku”*

and from that point we started to talk,

- 41 *panya ngayulu kulini “tjinguru nyaa tjukutjuku”*

I was thinking ‘maybe this is not much’

- 42 *paluru watjanu “ngura, meeting panya nyanga malangka piruku ngura nganala?”*
but he said “a place, the next meeting after this one will be where?”

- 43 *ka ngayulu panya ngurpa, putu nguwanpa kulini, munu na kulini tjinguru nyangatja, meeting nyangatja, nyangangka wangkara wiyaringkuntjaku*

but I didn’t realise it, I could hardly understand it, since I was expecting maybe at this meeting here to finish talking about it

- 44 *palu watjanu “meeting kutjupa nganala, Docker Riverla*
but he said “the next meeting will be at Docker River”

- 45 *ka pirukultakutu ankunyangka*
and going to the next one

- 46 *ka kuwaripangka, panya tjinguru letter uwankara anu, ngura wingkikutu*
but just before this, all those letters might have gone out, to every place

- 47 *ka palulanguru pitjangu, Kalgoorlielanguru, munu panya DAA, munu palulanguru*
kutjupa Northern Territorynguru pitjangu, panya tjanampa Legal Aidtjara tu,
munu palulanguru nganampa South Australianguru, ngananya panya Andrew
Cowup, paluru pitjangu, munu DAA
so from there people came, from Kalgoorlie, from DAA, and then others came from
the Northern Territory, with their Legal Aid as well, and then ours from South
Australia, that was Andrew Cowup, he came and DAA SA
- 48 *nyara palulanguru meeting pulka wangkangi*
with all that there was a big meeting
- 49 *ka ngayulu kulini 'hey, meeting nyangatja nyaaku pulkaringkanyilta', panya*
nganana tjukutjuku ngangana wangkangi
and I was thinking 'hey, how did this meeting get so big, since we were only talking
about something small?'
- 50 *palu ngayulu kuranyangu nyakuntja wiya, panya ngatalpa ngarangi, tjangati*
but in the beginning I didn't see, because I was ngatalpa, this side
- 51 *ka meeting nyara palulanguru tjitutjara ngarakatingu, rawa alatjitu*
and there were meetings all the time from that point, continually
- 52 *ngura wingkinguru?*
from everywhere
- 53 *uwa, wingki pitjangu, ka anangu wingki alatjitu,*
yes, a great many came, and there were too many people
- 54 *munu ya kulini 'nyaaku ya nyangantu wangkanyi'*
and they were wondering 'what are they talking to us for?'
- 55 *kutjupa tjutangku putu kulini*
many couldn't understand
- 56 *kuwari kutju alatjitu, nyara palula wingki kutjungku katingu*
this was the first time, that was the first time all this had been brought up
- 57 *ka panya kutjupa, meeting kutjupa, nganmanpa wangkantja wiya alatjitulta*
and it hadn't been talked about at all before in meetings
- 58 *ka nyara palula kuwari kutju, kutju ngarangi*
and it was only now, the first time
- 59 *ka kutjupa tjutangku kulini 'nyaaku ya nyangantu wangkanyi'*
and many were wondering 'what are they talking to us for?'
- 60 *alatji paluru tjana kulinigi*
this was what they were thinking
- 61 *munu palulanguru mala uwankara ngalya-nintirinku-katingu*
and it was after that time that everybody started to learn

- 62 *meeting panya ma-pulkaringangi*
the meetings kept getting bigger
- 63 *ka anangu tjuta ma-nintirinku-katingu*
and the people kept on learning
- 64 *Land Rightsku?*
for Land Rights?
- 65 *uwa*
yes
- 66 *ka palulangurungka kulinyangka, nyaa DAA Canberralu (pitjala kuliningi)*
and then as they were thinking about it, DAA from Canberra came to listen
- 67 *munu na watjanu "alright, nyura wangka kutju", munu palulanguru "Law kutjutjara"*
and I said "alright, you speak one language", and then "you have one Law"
- 68 *ka palulanguru tjinguru DAA office panya change-aringu, Alice Springsala, kutjungka, Northern Territory, Western Australia, South Australiakutu,*
and it might have been at that time that the DAA office changed to become one in Alice Springs
- 69 *nganmanpa Adelaideala ngarangi?*
was it in Adelaide before?
- 70 *uwa, nganmanpa Adelaideala ngarangi, Kalgoorliela ngarangi, Alice Springsala ngarangi*
yes, before it was in Adelaide, in Kalgoorlie and in Alice Springs
- 71 *munu nyara palulanguru kulu, panya startara Pitjantjatjara Council*
and also at that time Pitjantjatjara Council started
- 72 *nyara paluru alpamilangi anangu tjuta, homelandaku*
it was helping the people, for homelands
- 73 *paluru tjana pitjanyi, munu ngatjini "ngayulu homelandaku tjungkuntjikitja mukuringanyi"*
they would come and demand "I want to set up my homeland"
- 74 *ka watjani "uwa, palya"*
and it said "yes, alright"
- 75 *tjana kalkungi, meeting nyara palula, nyaa, panya motorcar mantjintjaku, homelandaku, tank and windmill tjungkuntjaku*
they would promise things, at those meetings, for example to get a motorcar for a homeland
- 76 *ka mulapa, DAAngku panya mapalku alatjitu ungangi, nyara palulangurulta*
and it's true, DAA was giving things really quickly, at that time

- 77 *ka palulanguru, ngura nyanganpan startaringu, nyara palula time*
so from that, these places were started, at that time
- 78 *Pipalyatjara, Kanpinya tjana?*
Pipalyatjara, Kanpi and so on?
- 79 *uwa, panya*
yes, those ones
- 80 *ka palulanguru panya startara nganana manta kutju wangka-katingi*
so from there we started to talk mainly about the land
- 81 *nyara palulanguru nganana startara anangi nganalakutu, panya governemnt Premier Dunstan-nga nyinangi*
because of that we started going to see the Premier, Dunstan
- 82 *ka nyara palulanguru nganana meeting, panya budget meetingka anu*
at that time we went down for a budget meeting
- 83 *munu palulanguru, meeting palula wiyangka la anu, palunya nyakuntjikitjan*
and after it was finished we went to see Dunstan
- 84 *munu la interpreter katingu, ngananya, Paul Eckhardt*
we took an interpreter, Paul Eckhardt
- 85 *ka panya youngfeller purunpa paluru, school teacher nyinapai*
he was like a youngfeller, working as a school teacher
- 86 *paluru ngulu nguwanpa ngarangi, nyara palula*
he was almost frightened there
- 87 *paluru translator pitjangu, nganampa*
he came as translator for us
- 88 *paluru wangkangi "wiya, nganana Land Rights nyaakun ngatjini?, governmant tjuta nyakula 'kawakawaringkula nyanganpa ngaringu?'"*
he would say "no, why are we demanding Land Rights? when the government sees this they'll think 'they're crazy, what's wrong with them?'"
- 89 *ka la pala palula startara Adelaideala tjarpangu*
that was when we started going to Adelaide
- 90 *ka la wangkangu, ka watjanu "uwa", nyara palulanguru watjanu "uwa", uwankara katintjaku, rawanku!*
so we talked to him, and he said "yes!", and then he said "yes", to keep on bringing the whole story
- 91 *and mapalku ungu truck*
and he gave us a truck straight away
- 92 *ka la panya wangka-katingilta, rawalta*
because of that we kept on carrying the message,

- 93 *meetingku pitjangi, telegram tjuta iyangi, ankula palula wankantjaku*
coming to meetings, sending out telegrams, to go and talk to Dunstan
- 94 *ka panya government change-aringu piruku, ngananya, Tonkin*
but then the government changed to Tonkin
- 95 *ka palunya time piruku nganana anangi*
and then we had to go down again
- 96 *panya executive tjuta ya ngurkuntanu, Pitjantjatjara Council-nguru executive tjuta*
ma-tjunu, kunyu "nyura executive"
these were the executives they had chosen, from Pitjantjatjara Council executives
were put up, and told "you are the executive"
- 97 *executive-antjara kutjupa mankurpa anangi, executive kutjupa tjuta nyinangi,*
ngurangka
a few from the executive would go down, and the others would stay at home
- 98 *executive panya ngananya nyinangi? tjilpi tjuta?*
who were the executives? the elders?
- 99 *uwa, tjilpi panya kutjupa tjuta, uu ngananala ngarangi, nyarapalulangurungka,*
ngayulu, ngananya, ngayuku malpa Walatinalanguru, Yaminya, munu kutjupa
tjuta kulukulu
yes, some elders, and there were some at our age, at that time, myself, who else, my
friend from Walatina, Yami, and others too
- 100 *nyara palulanguru panya meeting rawangku, wangkara, wangkara*
from there they kept on talking, on and on
- 101 *panya Victory Parkakutu anu*
so then we went to Victory Park
- 102 *ka panya anangu panya kutjupa tjuta ara ngarangi, panya nyaa, nganananya*
support-amilapai, nyara Adelaidealanguru
and there were many other people there who were supporting us, from Adelaide
- 103 *munu ya paluru tjana wangkangi tu, nganananya supportamilanangi*
and they were talking too, supporting us
- 104 *nyura bus-angka pitjangu?*
you went down on buses?
- 105 *uwa, bus-angka nganana anu, anangu panya wingki mulap*
yes, we went on buses, a great many people
- 106 *munu palulanguru Victory Parkangka ankula nyinangi, munu wangkangi,*
wangkara wangkara
so we went down and camped at Victory Park, and kept on talking and talking

- 107 *nyara palulanguru piruku anu, munu la meeting executive tjutalta wangkangi,*
palula
from there we went back, and we executives talked to him
- 108 *pala palulanguru, uwankara wiyaringkula, nganana malaku pitjangu*
and then, when it was all over, we came home
- 109 *munu palulanguru rawa anangi, piruku*
and then we would go back, over and over
- 110 *ka panya Tonkin-tu kulinigi, nyara anangu tjutangka*
so Tonkin was listening to us, to all those people
- 111 *munu rawangku wangkara wangkara, nganana lawyer panya kutjupa mantjinu,*
Melbourne-tanguru
and talking over and over, we got a new lawyer from Melbourne
- 112 *paluru ngananalta wangka-katingi*
he would take the message with us
- 113 *ka paluru panya mining side kulukulu nyangangi, munu wangkangi*
and he was also looking at the mining side, and talking about it
- 114 *munu palulanguru watjanu "mantjinulta!", 1981.*
and eventually he told us, "we've got it!", it was 1981.

Appendix 2

Other descriptions of Western Desert dialects

A.2.1 Formalist descriptive traditions

With a few exceptions such as the work of McGregor (1990), Merlan (1994), Rumsey (1990) and Rose (1991, 1993, 1996), descriptions of Australian languages to date have tended to be framed within variants of formalist traditions, although generally influenced to some extent by functional considerations. For example, the traditional interpretations of nominal case inflections and syntactic concepts such as subject, object, and agent are functional labels for types of participants. However the primary focus and organising principles of formalist descriptions tend to be the overt forms of syntagms, construed as constituent structures composed of phonemes and morphemes. Descriptions begin with lists of phonemic constituents and structures, followed by sections on each word class, categorised according to overt morphological markers, followed by a section on syntax, construed as rules for arranging word classes in sentences, and sometimes include a section contextualising the description mainly within variants of North American formalist theory. The descriptive sequence of smallest to largest structural unit and the interpretive priority given to form over meaning reflects both linguistic tradition and the requirements of Australian language classification projects, for the reconstruction of regular phonetic, morphemic and lexical changes (e.g. O'Grady 1966, 1979, Wurm 1971, Capell 1979, Blake 1983, Dixon 1980, Evans 1988, Sands 1996, Koch 1997). Where meaning is addressed, it is 'referential', i.e. experiential meaning, generally construed as located within individual words and morphemes, while syntax is construed as a set of rules for binding word and morpheme meanings together into 'phrases' and 'sentences'. This descriptive approach is standardised in Dixon 1980, and has been applied as much to description of Western Desert languages as any other.

Description of Pitjantjatjara began with lists compiled by Tindale during his 1933 expedition to the Mann Ranges (Tindale 1936). It was described more comprehensively in a monograph by Trudinger (1943), the first missionary teacher linguist at Ernabella Mission. More recent academic descriptions of Western Desert dialects have included Douglas's (1964) survey of the Western Desert language, Glass and Hackett's (1970) monograph on the Ngaanyatjara dialect, spoken in the Warburton Ranges to the west of the Pitjantjatjara area, Hansen and Hansen's (1978) grammar of Pintupi, spoken in NT and WA, and Goddard's (1985) grammar of Yankunytjatjara, spoken in the Musgrave and Everard Ranges, SA, to the east of the Pitjantjatjara area. Glass and Hackett's description is subtitled 'A Tagmemic View', while Goddard's claims to be a 'semantically-oriented grammar'. Both however are organised along traditional formalist lines, taking phonetic and morphological

classes as primary organising principles, rather than functional or semantic categories. A partial departure from traditional formalist concerns is represented by Bowe (1990) whose interest is in constituent order of groups and clauses in Pitjantjatjara, influenced by the typological work of Greenberg and Comrie. There have also been several descriptions aimed at teaching the language to English speakers. These have tended to be more functionally oriented as they attempt to compare semantic categories between English and Pitjantjatjara, but are nevertheless organised on similar principles to the formalist academic descriptions from which their data derives. They have included, among others, brief materials published in the late 1970s by the Institute for Aboriginal Development in Alice Springs (1979), a package including audio-cassettes by Kirke (1984) and a comprehensive handbook by Eckert and Hudson (1988).

In the following reviews, numbering of examples are those given in the authors' original works.

A.2.2 Glass and Hackett 1970

Glass and Hackett's description of Ngaanyatjara is framed within a version of the Tagmemic descriptive framework, for which they cite Longacre (1964). It is organised by rank, from smallest to largest constituent, an example of what Halliday (1996a:21) calls the 'bricks-&-mortar' model of traditional formalist descriptions, chapters including:

1. Morphophonemic rules,
2. Stem formation,
3. Word level,
4. Phrase level,
5. Clause level.

For each descriptive category a syntactic rule formula is first defined, e.g. for 'verb stems':

ivs=+c: nvr/ur=verbaliser

Where ivs = 'intransitive verb stem', c = 'core tagmeme', nvr = 'non-verbal root', and ur = 'unknown root'. Within each category above morpheme level, a mixture of formal and semantic labels are given for each sub-category, e.g. for 'VERB MORPHOLOGY: Suffix 11 Command':

The command tense is used to indicate the following:

- a) command in imperative clauses,
- b) hortative in imperative clauses,
- c) subjunctive when occurring with the suffix /-palka/ in imperative clauses,
- d) non-permissive (i.e. impossible, unfitting, forbidden, or ridiculous) when occurring with /pumpalka/ in non-permissive clauses.

Despite the semantic labelling, the criteria for these categories are firstly classes of morphemes, and secondly classes of words (each of which actually contributes to realising different meanings in different grammatical environments). As a result of their assumption that morpheme-class = meaning-class, the distribution of functional categories across Glass and Hackett's descriptive categories tends to be inconsistent. For example, so-called 'word

level' includes group and clause rank functions, including interpersonal, experiential and logical meanings at clause rank. In the formal category 'VERB MORPHOLOGY: simple verb: tense suffixes', the interpersonal clause rank function of *imperative mood* is sub-classified within the experiential group rank category of *tense* with the label 'command tense', on the criterion that both are realised by verbal suffixes.

On the other hand, certain tenses are categorised separately with *aspect* of non-finite clauses under 'VERB MORPHOLOGY: complex verb', where their realisation is held to entail a 'complex suffix'. For example the habitual tense, e.g. *ngalku-Ø-payi* 'does eat', is held to be one of the 'complex' rather than 'simple' verb class, on the criterion that it includes a 'punctiliar' suffix (in this case with Ø realisation!). Interpersonal and logical functions are also included as sub-types of 'complex verbs', including negative imperative clauses, e.g. *pampu-l-tjara* 'don't touch it', or mental projections *nguluri-ngu-litju patja-l-tjaku-tara* 'we2 feared it biting', both on the criterion of the so-called 'punctiliar' suffix *-l-*.

In fact this phoneme has no grammatical or semantic function: its role is purely phonemic, depending on the phonological structure of the verb stem. Verbs whose second syllable Onset is a stop, e.g. /pam/pu/ 'touch', add an intermediate liquid to the Rhyme, when the inflection Onset is also a stop, e.g. future tense /pam/pul/ku/ 'will touch', or habitual tense /pam/pul/pai/ 'does touch'. However the intermediate liquid is not required if the inflection Onset is a nasal, such as present tense /pam/pu/ni/ 'is touching'.

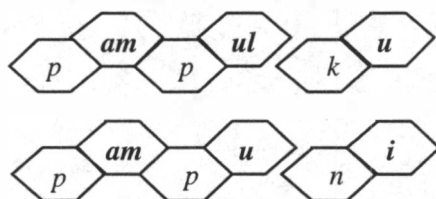


Figure A.2.1: Intermediate liquid before a stop

Verbs whose second syllable does not begin with a stop, such as /mi/ra/ 'shout' do not change, e.g. /mi/ra/ni/ 'is shouting', /mi/ra/ku/ 'will shout'. Verbs with only one syllable, such as /tju/ 'put' or /pu/ 'hit' are always given a second syllable, e.g. /tju/na/nyi/ 'is putting', /tjung/ku/ku/ 'will put', or /pu/nga/nyi/ 'is hitting', /pung/ku/pai/ 'does hit'.

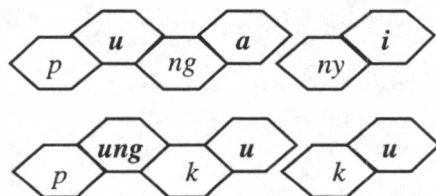


Figure A.2.2: Added second syllables

In terms of the model discussed in §2.5 above, such added phonemes and syllables function only in the sonority wave within the phonological stratum; they do not have a lexicogrammatical function independently of the words and inflections of which they are constituents.

Glass and Hackett's exclusive focus on overt morphological features also means that the description contains major gaps, where functions are realised by covert reactances in the lexicogrammar and by intonation. For example, under the heading 'CLAUSE LEVEL:

independent verbal clauses', 'transitive indicative clauses' are contrasted with 'transitive query clauses' which include only those yes-no interrogatives that contain the modal Adjunct *munta*; the role of rising tone in yes-no interrogatives is completely overlooked.

'Indicative' and 'query' are also grouped with other 'transitive verbal clauses' with overt word or morpheme rank contrasts:

- i) 'interrogative' which are *nya*-interrogatives realised by a *Nya*-element,
- ii) 'imperative' with imperative verb morphology,
- iii) 'non-permissive' which include the modal Adjunct *pumpapalka* 'not right' (not a feature of Pitjantjatjara),
- iv) 'subjunctive' with the modal Adjunct *tjinguru* 'maybe',
- v) 'cessative' and 'prohibitive' which are both negative imperatives, one realised by a negative verbal suffix and the other by a negative nominal suffix.

So within the experiential categories of TRANSITIVITY: transitive/intransitive are grouped the interpersonal categories of MOOD: indicative/interrogative/imperative, MODAL ASSESSMENT: 'disapproval'/low probability, and POLARITY: negative. These are then contrasted with 'peripheral tagmemes' which include a diverse range of transitivity roles and clause complex relations. For example, circumstances of Purpose and Behalf are grouped with the participant role Phenomenon, on the basis of a common genitive inflection *-ku*.

Contrasted with 'verbal clauses' are:

- i) 'non-verbal clauses', i.e. relational clauses,
- ii) 'included clauses', which include certain types of hypotactic dependency between clauses, as well as relative clauses embedded in nominal groups, and
- iii) 'participial clauses', which includes other types of hypotaxis.

Four types of relational clauses are identified, including 'equational' and 'descriptive'. While these two labels are semantic, the descriptive criterion is word class, i.e. nominal vs adjectival Range, so that the 'equational' category actually includes more attributive than identifying examples, without distinguishing them, e.g. [attributive] 'this goanna is good meat', [identifying] 'Wururu is Barnabas' birthplace'. The distinction between 'included' and 'participial' categories is morphological: those with *-tja* in the verbal suffix are 'included', while those with *-ra* are 'participial', even though both categories include temporal clause complex relations, e.g. ['included'] 'after seeing the food he went'; ['participial'] 'and we, having left, went', and 'included' covers different ranks, e.g. [embedded in nominal group] 'the white woman [[who was sitting in the train]] saw me' (see Goddard's 1985 conflation of group and clause complex functions, reviewed below).

The grouping together of disparate functional categories on morphological criteria undermines Glass and Hackett's efforts at a semantically oriented description. Examples are classed initially on the criterion of a single common morpheme, and semantic glosses are then attempted for each sub-class. The result is that semantic categories tend to be randomly distributed across the description, and that categories from unrelated semantic regions are classed together under a single heading. This problem with semantic cohesion of the description is compounded by attempts to define a single meaning for each morphological category, independently of the environment in which it operates at higher ranks.

A.2.3 Dixon 1980

R.M.W. Dixon was a post-graduate student of Halliday's in the U.K. before coming to Australia in the early 1960s to study north Queensland languages, but has taken a very different theoretical path since. As former head of linguistics at the prestigious Australian National University, Dixon has had a profound influence on Australian linguistics, and particularly on what counts as a description of an Australian language, including Western Desert. This model is set out in his 1980 textbook on Australian languages, in which he states the following principles underlying his approach (Dixon 1980:21, his emphases):

It is one of the fundamental insights of modern linguistics that languages differ not in what they CAN say, but in what they MUST say. That is certain semantic choices must be made if a sentence is to be grammatical.

There are two assumptions embodied in this statement, which as Dixon foregrounds, derive from North American formalism (and ultimately, according to Matthiessen & Nesbitt 1996 and de Beaugrande 1997, from medieval grammars based on Latin):

- i) languages vary in rules of syntactic structure but not in meaning potential,
- ii) the role of grammar is not to enable speakers to make meaning, but to constrain the meanings they can make.

Behind this view is the belief that the source of language lies not in particular cultures, but within certain universal structures of the human brain. These structures are assumed to be invariant between cultures but are processed into linguistic expression through syntactic rules that vary between languages in semantically arbitrary ways. Conversely the view assumes that the contexts of language consist of non-linguistic features of material reality, that may vary between cultures and individuals, and are expressed in some but not all of the morpho-lexical items that are bound together in the syntactic structures of a language. Grammar in this model is construed as an arbitrarily structured conduit for passing discrete units of 'referential' meaning between individual minds, imposing strictures on which ones can be inserted into particular structures and which ones cannot, depending on the syntactic rules of the particular language one is speaking.

Edelman (1992) explains how this formalist model of cognition conflicts with what is known about the evolution and ontogenesis of the human brain, and dismisses the hypothesis of an arbitrary syntax. However the formalist view also has profound implications for what a grammar enables linguists to do. Because it models grammar as arbitrarily related to context on the one hand and consciousness on the other, it is very difficult for the linguist to identify just how culture influences the ways that people represent their experience in language, let alone enact their relationships, other than through the minimal units of grammatical structure—lexemes, pronouns, case inflections, clitics, particles and the like. The goal of description is an inventory of these minimal units, the lexemes in a dictionary and the 'gramemes' in a grammar, which also specifies the rules for binding them into words, phrases and sentences. Within mainstream Australianist descriptive linguistics, the major expenditure of descriptive labour is put into highly specialised detailed argumentation about the forms and structural rules of such minimal units. The theoretical function of such descriptions tends to be limited to typological studies of these minimal structural units, using the comparative methods of traditional historical linguistics. When linguists trained in such traditions come to talk about the cultural contexts of indigenous languages, they are generally forced to leave grammatical analysis behind, except to exemplify the expression of culture

through the lexis, pronouns and kin terms, or the 'pragmatic' uses of particles, clitics and other overt features (e.g. Chafe & Nichols 1986, Goddard 1990 reviewed in §A.2.4 below, Harkins 1997).

Martin (1997) discusses the influence of Dixon's approach as follows:

The hegemonic discourses of linguistics in this country derive from the founding authority of R.M.W. Dixon of the Australian National University and are now enacted in various centres ...In Robert de Beaugrande's terms (1997), the profile of these discourses is somewhat schizophrenic. On the one hand, the main mission of these linguists is to describe the Australian, Austronesian and Papuan languages of the region (fieldwork linguistics); on the other hand there is the concern that this work be valued by American formalism by being seen as theoretically relevant (homework linguistics). This tension leads to a curious opposition between facts and theory - consider Dixon 1972: xix introducing his well known grammar of Dyirbal:

The grammar is written at two distinct 'levels'. The 'facts' of the grammar... are described in Chapters 3, 4 and 6. Chapter 5 interprets some of these facts, setting up generalisations and describing the 'deep' grammar of Dyirbal... It has seemed desirable to (at least partially) separate the facts from interpretations.

This naively positivist notion of untheorised facts is deconstructed in Matthiessen and Nesbitt 1996 and need not detain us here. More important is the kind of language description it promotes ...descriptions of languages inspired by the ANU tradition lean towards the so-called facts - an account of phonemics and morphology and a little syntax, based as far as possible on what Whorf called phenotypes - grammatical categories realised through overt morphological marking.

The kind of language description prescribed by Dixon's program is set out in his 1980 *Languages of Australia*. The view of language it assumes is evident in the ordering and weight given to each section. Following a non-linguistic account of historical and cultural contexts, and a brief section linking culture with vocabulary, 140 pages are devoted to phonetics, phonetic reconstruction, and language classification based on these reconstructions, 170 pages to morphological features of word classes and morpheme reconstructions, and finally thirty pages to rules of syntax. Dixon's descriptive program for indigenous Australian languages is not primarily to describe how they make meaning; rather it is grounded in the European historical linguistics tradition, of "diachronic phonology and articulatory phonetics" (Halliday 1987).

Nevertheless, although the forms of constituents are Dixon's primary interest, certain semantic functions are also employed as descriptive criteria for syntactic rules. As this is a point at which his model approaches a functional account of Australian languages, I will review some aspects of his analysis here. Dixon (1980:293-316) recognises up to twelve different 'syntactic functions' of nominal groups ('NPs' in formalist terminology), indicated by case inflections on one or more elements of the nominal group. He groups these functions, on either semantic or morphological criteria, into 'core', 'local peripheral', and 'syntactic peripheral' functions. Although these are structural labels only, his 'core' includes the participant functions classed as 'A, S and O'; 'local peripheral' includes the circumstantial functions of Location ('locative', 'allative', 'ablative'); while 'syntactic peripheral' includes participant functions Receiver in verbal processes and Phenomenon in mental reaction ('dative'), circumstantial functions of Cause ('purpose', 'cause', 'aversive') and Means ('instrumental'), as well as group rank possessive Deictic ('genitive'). Thus, while some general functional categories are recognised, circumstantial elements are grouped with

optional participants and group rank functions, on the basis of morphological similarity, as in Glass and Hackett above.

While Dixon's view on nominal elements is functionally oriented if formally labelled, he views verbs purely in terms of syntactic rules. He repeatedly states that all verbs in Australian languages are "either strictly transitive - occurring with subject (A) and object (O) core NPs - or strictly intransitive - occurring just with a subject (S) core NP" (1980:378). As a formal description this binary classification of verb types is arbitrarily narrow, since clauses with more than one nominal complement ('object') are common in Australian languages, including dispositive actions with additional Recipients, verbal processes that include Receivers, and caused mental reactions and relations that include additional Agents. Relational clauses without a verb are also equally common, and complements of mental and verbal processes may be projected clauses as well as nominal groups. The 'core' participant functions A, O and S are classified on morphological grounds, "having nominative (SA) - accusative (O) morphology for pronouns but an absolutive (SO) - ergative (A) paradigm for nouns" (Dixon 1980:441-442). Dixon further claims that:

All Australian languages have obligatory case marking on noun phrases and/or extensive cross-referencing of core NPs in the verb. This provides clear identification of subject and object in all (or, for some languages with only cross-referencing, in very nearly all) sentences.

This statement cannot be supported by text analysis. It is common in Western Desert, and other Australian languages, for two nominal groups within one clause to take the same inflectional form, just as it is common for clauses to occur with two participants, neither of which is inflected as 'ergative' (see Goddard 1985:31, Bowe 1990:55, who both give examples of such clauses). Secondly one of the most frequent realisations of non-interactants in declarative clauses in Western Desert is neither nominal nor pronominal but by implicit presumption ('zero realisation'), and there is no verbal cross-referencing. In actual texts, the functions of nominal elements are distinguished not only morphologically but semantically: in the type of entity they represent; in the type of process they participate in; and in their presentation in the flow of discourse as new or already known.

The semantic parsimony of Dixon's transitivity model for Australian languages is clearly a problem, but rather than broaden its functional categories his response is to align his description with Chomskyan transformational theory, proposing 'deep/surface structure' transformations where two distinct structures are interpreted as expressing the same meaning, in order to comply with rules of syntax that are literally 'meaningless'. This dualising of form and meaning reflects the assumption underlying formalism in general, of an arbitrary relation between grammatical structure and semantic concept, an assumption that derives from the notion that meaning resides in the atoms of linguistic structure—words and morphemes. At the same time, the axiom of a one-to-one denotative relation between each morpheme and a single meaning generates a great deal of argumentation in instances where the axiom does not hold. Dixon, for example, claims that a transitive (but non-effective) clause with two participants, a Medium inflected as 'absolutive' and a Range inflected as 'dative', is really a transformation of an underlying (effective) AOV structure, exemplified from Dyirbal (1980:446):

- (13) *bayi yara gunba+l+nga+nyu bagu yugu+gu bangu barri+nggu*
 HE+ABS man+ABS cut+ANTIPASS+PAST IT+DAT tree+DAT IT+INST axe+INST
 'The man was cutting the tree with an axe.'

Because he classifies the Dyirbal verb *gunba* as 'strictly transitive' (and assumes that 'transitive' = effective), Dixon (1980:446) is forced to explain why its participants in (13) 'the man' and 'the tree' are not inflected as agentive subject 'A+ERG' and object 'O+ACC' respectively. His explanation is that this clause is 'antipassive':

a syntactic process something like passive, [in which the] underlying A NP goes into S function; the deep O NP is now marked by the peripheral syntactic case, dative, and the construction is marked as antipassive by the inclusion of the derivational suffix *-nga-* between verb root and tense.

This 'syntactic process' is explicitly modelled by Dixon on a transformationalist interpretation of passive voice in Latin "which takes the underlying O NP (otherwise marked with accusative case) and puts it in derived S function (shown by the unmarked nominative case)" (1980:446), a significant comparison since so many of the categories Dixon applies to Australian languages are derived from traditional Latin-based grammar. However the notion of 'antipassive' is actually derived from his conception of the function of passive voice in English verbal groups—to enable transitive verbs to be 'agent-less' and still conform to the basic syntactic rules for 'grammatical sentences' in English, viz. either 'SV' or 'AVO' word order ('OV' is supposedly not a grammatical English sentence). Passive voice is assumed to be necessary so that the experiential 'object' of a transitive verb can be transformed into the 'subject' of its passive variant and lose its 'agent'.

But as Halliday (1994a:168) has shown, the function of passive voice in English is primarily textual, to enable complements of transitive clauses to become unmarked Theme, e.g. *the duke gave my aunt that teapot/my aunt was sent that teapot (by the duke); that teapot was sent (to my aunt) (by the duke)*. A similar textual function is achieved by means of clitic pronouns in Australian languages (including 'zero realisation'), allowing various other elements to become unmarked Themes. Lacking a model of textual function, Dixon does not distinguish between the experiential functions of 'logical subject', as Agent, and the textual function of 'psychological subject' as Theme,¹ so that to him the purpose of passives in English and Latin is not to thematise the 'object', but to follow the SV word order rule by transforming it into a 'subject'.

Dixon's notion of 'antipassive' in Australian languages is derived from the formalist interpretation of passive in English and Latin, but inverted: 'antipassive' must be used with a transitive verb to permit a 'grammatical sentence', "if we wish to specify the agent but not the patient", i.e. so that a verb that is normally only allowed in an 'AOV' sentence is allowed in an 'SV' sentence. Dixon (1980:446) claims that the so-called ANTIPASS infix *-nga-* must be used to allow the 'patient' of a strictly transitive verb like *gunba* to be left out, "giving the grammatical Dyirbal sentence":

- (14) *bayi yara gunbal-nga-nyu (bangu barringu)*
 'The man was cutting (with an axe).'

This argumentation is quite unnecessary with even a slightly more elaborate model of transitivity functions than Dixon is prepared to allow. The simple experiential gloss of (13) is

¹ See Halliday (1994a:31) for discussion of 'logical', 'psychological' and 'grammatical' definitions of 'subject', and Butt (1996) for critique of the universalist assumption of 'subject'.

that 'the man was chopping at the tree with the axe' (i.e. without cutting it down). Like (14) this is **construed by the grammar** as a non-effective action of which 'the tree' is the optional Range, and so inflected as 'dative' and glossed in English by a prepositional phrase (see Halliday 1994a:146–149). To re-construe the clause as being 'underlying' effective when it does not say so is merely an invention of the analyst, an attempt to force a meaningful round peg into a theoretical square hole. However Dixon is largely right about the transitive/intransitive categories of most Australian verb stems, that is they typically denote either effective or non-effective processes, but what his binary model of verbal lexis does not allow is that their effectivity can potentially be reversed by means of inflections like *-nga-*. For example, the Dyirbal verb *gunba* may typically function in effective clauses, but is marked in the context of (13) as non-effective by *-nga-*. Likewise, non-effective Western Desert verbs such as *paka-ni* 'rising' are made effective by suffixes, e.g. *-tjinga-*, producing *pakal-tjinga-nyi* 'raising up'. This is an unremarkable and common feature of Australian and other languages, comparable to other types of transcategorisation such as nominalisation and various types of causative and inchoative verbalisation in Western Desert (§2.6.4.3 above), but seems to be unrecognised in Dixon's framework.

As a functional description of transitivity Dixon's SV/AOV binary system is over-generalised because it is based on only one or two clause types, the favoured type for constructed examples in formal grammars such as 'the man-ERG cut the tree-ABS' or 'the man-ERG saw the dog-ABS' (Dixon 1980:439), but not 'the man-ABS climbed the hill-ABS', 'the man-ABS saw the dog-ABS running' or 'the man-ABS said the dog-ABS was running'. Only material action clauses in Western Desert display the simple distinction between effective or non-effective. As we have seen, transitive action clauses need not be effective, and transitive mental or verbal clauses certainly are not, despite the so-called 'ergative' case marking on their conscious Medium. The function of the latter is to distinguish Medium from a potentially conscious Range, allowing either to be Theme, e.g. 'the dog-ABS the man-ERG saw' (glossed in English as 'it was the dog the man saw'). The intransitive/transitive choice is more accurately a clause rank system, realised by various possible configurations of process and participants. For example, the verb *wangka-nyi* 'saying' may function as a verbal process with two or three participants, all realised as nominal elements, e.g. *ngayulu palu-la tjukurpa wangka-nyi* 'I'm telling him a story'. Unlike action processes, signifying processes may project locutions or ideas, in which case the Medium may be the only nominally realised participant. Furthermore the same 'transitive' verb, such as *wangka-nyi*, may appear as a behavioural process, construing verbal behaviour as a material act, with only one participant, *ngayulu wangka-nyi* 'I'm talking'. Of course the 'SV/AOV' classification also marginalises relational clauses in Australian languages that are realised without a verb, such as *nyuntu ninti* 'you're aware', *ngayulu David-anyu* 'I'm David'.

While restricting the meaning potential of experiential wordings, Dixon also constrains exploration of other domains of meaning in Australian languages. The following is the extent of his discussion of textual organisation in the clause and group (1980:441):

The order of words and phrases can, in most Australian languages, be extraordinarily free; it has little or no grammatical significance. A preferred order can usually be perceived; this may be employed in systematic elicitation, or in a discourse when ambiguity might otherwise result. But there can be unlimited deviation from this preferred order, dictated partly by discourse considerations ('topic' and the like) and partly by the whim of the speaker.

Dixon's claim of 'remarkably free' order is a consequence of his methodological approach, which attempts to define rules of what counts as a 'grammatical sentence', rather

than to analyse the meaning-making resources of natural discourse. This means that the analyst tests hypotheses on speakers or herself by inventing examples out of context and asking whether or not they are allowable, so-called 'systematic elicitation'. By such methods, it can be proved that any order of constituents in most clauses is meaningful, since meaning is defined purely in experiential terms and textual organisation is irrelevant out of discursive context. Examples from the ANU school include Hale (1983) and Blake (1983) who found by this method that the Australian languages Warlpiri and Kalkutungu respectively are 'free word order' languages. Blake, for example, claimed that there is no group structure or word order in Kalkutungu from testing 120 possible combinations of a five-word sentence. Despite the quantitative appearance, such experiments are not empirically valid, since the hypothesis which they are designed to test, of 'free word order' vs 'fixed word order' languages, is seriously flawed from the lack of a textual theory. This hypothesis is self-fulfilling because it defines the semantic functions of constituent order only in experiential terms, so that the elicitation experiments designed to prove it use questions that focus on experiential meanings that are not realised by constituent order. This elicitation method is guaranteed to exclude textual organisation from consideration, since it avoids observation of the texts that speakers actually exchange with each other.

A.2.4 Goddard 1985

Goddard's 1985 thesis *A semantically-oriented grammar of Yankunytjatjara* is representative of the type of description produced by the ANU Linguistics Department under Dixon. Yankunytjatjara is a Western Desert dialect closely related to Pitjantjatjara, and Goddard's description has been influential on work in Western Desert and other Australian languages, so I have given it some close attention. Its organisation follows the standard formalist framework, beginning with segmental phonemes and phonotactics, up through case and case marking, nominal classes and transcategorisation, verbal classes and verb-stem morphology, 'miscellaneous topics' and finally 'sentence connectives and particles', concluding with a brief survey of 'ways of speaking'.

Goddard's description considerably extends the detail of earlier work such as Glass and Hackett's, but suffers from similar methodological limitations. Perhaps most significant is the marginalisation of interpersonal features into a few 'miscellaneous' and 'particle' subheadings, and textual features in brief synopses such as 'word order', 'ellipsis' and the 'ANAPHORIC demonstrative'. As the only kind of meaning recognised is 'referential', there is no explicit distinction made between interpersonal, textual and ideational reference, rather an experiential gloss is attempted for each item at word and morpheme rank, with 'free translations' at clause rank. As with Glass and Hackett, and Dixon, Goddard's conception of semantics is based on the same pre-Hjelmslevian assumption of a monostratal relationship between each morpheme and a single irreducible meaning, bound into formal structures by syntactic rules.

As we saw in §2.2.1, Halliday (1996a:21) describes this view of grammar as a "bricks-&-mortar model of a "lexicon" of words stuck together by grammatical cement", recommending that such an approach "can be abandoned as an outmoded relic of structuralist ways of thinking". However Goddard legitimates this monostratal bricks-&-mortar approach within an expressly reductionist descriptive method that he calls 'reductive paraphrase' after Wierzbicka (1972). This method "consists of decomposing complex signs into equivalent signs composed of semantically simpler units than the original" (Goddard 1985:9). Such reductive practices were rejected long ago by Whorf since, as he pointed out,

“the reference of the words is at the mercy of the sentences and the grammatical patterns in which they occur” (1956:258). Nevertheless ‘reductive paraphrase’ is still a practice in Australian linguistics (e.g. Goddard & Wierzbicka 1994). In Halliday’s terms (1996a) these practices entail separating each structural ‘brick’ from its syntactic ‘mortar’ and giving it a semantic label on some criterion intrinsic to itself. It is a theory of meaning appropriate not so much to natural adult language, as to the pre-grammatical protolanguages of human infants and perhaps the sign systems of certain other species.

Along with the narrow interpretation of meaning, problems arising from this approach are that, like Glass and Hackett’s description:

- i) larger domains of ideational meaning, such as process figures and logical sequencing, are distributed randomly between categories, depending on morphology;
- ii) items that function differently in different contexts are assigned a single function.

An example of both is in Goddard’s analysis of the verbal suffix he calls ‘SERIAL verb form’. We have already illustrated two environments in which this verbal inflection functions, with dependent processes in hypotactic clause complexes [1:2] and with verb series realising Duration [1:3], as well as verb complex examples in §A.2.4. Its general experiential meaning is ‘realis aspect’, as in English ‘V-ing/ having V-ed’, but only in proportion to irrealis aspect ‘to V’ (as in many other languages including English). However since Goddard’s theory of meaning is based not on *valeur*, but on a pre-Saussurean notion of semantic value intrinsic to each item, the realis-irrealis proportionality of non-finite processes is not only overlooked but denied, as follows.

Goddard classifies non-finite processes functioning in both clause complexes and verb complexes as types of clause constituent under ‘verbal inflections’, using a similar nuclear/peripheral model of transitivity structures as Dixon. Verb complexes are labelled ‘tight serialisations’, for example:

6-56 *paluru* *niinyii* *yanku-la* *ura-nu*
 DEF(ERG) zebra finch (ACC) go-SERIAL get-PAST
 ‘She went and got zebra finch (droppings).’

On the other hand, hypotactic clause complexes are labelled ‘loose serialisations’ within a single clause, and the dependent clause with ‘serial verb’ is labelled a ‘verb phrase’, because “it is possible to insert intervening material” between it and the finite process:

6-45 *wati-ngku* *malu* *waka-nu,* *ngura-ku* *kulpa-ra*
 man-ERG kangaroo (ACC) spear-PAST camp-PURP return-SERIAL
 ‘The man speared a kangaroo returning to camp.’

The dependent clause *ngura-ku kulpa-ra* ‘returning to camp’ is down-ranked by Goddard to a clause constituent, a ‘verb phrase’, despite the English ‘free translation’ as a clause complex. Without an articulated model of rank and metafunction, he conflates logical relations between and within clauses within a constituency model of the clause. Note also the morpheme rank gloss on *ngura-ku* ‘camp-PURP’, although its ‘free translation’ is not Purpose but Destination ‘to camp’ (see §5.5.1 above). The gloss ‘PURP’ is derived from the function of this morpheme *-ku* in a clause complex where it realises purpose as a verbal inflection, as in 5-45 below. This is tantamount to glossing the English clause ‘going to town’ as ‘going for the purpose of town’; one of its effects is to make the language, and its culture, appear arbitrarily exotic.

The consequence of grouping clause complex and word group environments on the criterion of a common morpheme is that, like Glass and Hackett, semantic relationships between types of clause complex are dispersed under contradictory descriptive categories. The so-called SERIAL verbal inflection realises realis aspect with **same Medium** reference. In the Western Desert this is one term in a system of non-finite processes that includes irrealis aspect, as well as switch Medium reference. Either of these four options for aspect and person are available in either verb complexes, or in hypotactic clause complexes. In the environment of clause complexing, they realise logico-semantic relations of time, manner, reason, condition, purpose, and projected perceptions and proposals. This range of enhancing logical relations is comparable to that of English hypotactic clause complexes (Halliday 1994a:215–269). They are set out in Table A.2.1 below.

Table A.2.1: Non-finite verbal suffixes in Yankunytjatjara

ASPECT	MEDIUM REFERENCE		CLAUSE COMPLEX TYPES
	same Medium	switch Medium	
realis e.g. 'sitting'	-la, -ra <i>nyina-ra</i>	-nytjala <i>nyina-nytjala</i>	time, manner, reason, condition
irrealis e.g. 'to sit'	-nytjikitja <i>nyina-nytjikitja</i>	-nytjaku <i>nyina-nytjaku</i>	purpose, projected perceptions and proposals

This paradigm is recognised in the Institute for Aboriginal Development's functionally oriented 1979 *Pitjantjatjara grammatical notes*, but not by Goddard (1985), whose categories are oriented not to function but to the smallest analysable units of structure. The feature Goddard calls SERIAL is in the upper left quadrant of Table A.2.1. The other three options are classified by him not under 'verbal inflections', but as types of 'nominalisation', purely because their suffixes include the morpheme *-tja* that indicates a nominal function in other contexts (i.e. as name for an activity or as embedded Qualifier in a nominal group, see §2.6.5.1 above). This is comparable to Glass and Hackett's misinterpretation of the phoneme *-l-* as realising 'punctiliar' aspect. As a result, Goddard classes hypotactic clause complexes together with names for activities, embedded clauses and circumstances, all as types of 'nominalisation', including:

a) word rank name of activity - "Action/state nominalisations"

- 5-1 *paluru* *ilu-nytja* *watja-ni*
 DEF(ERG) die-NOML(ACC) say-PRES
 'he's talking about dying'

b) group rank embedded clause - "Nominalised relative clauses"

- 5-14 *wati panya mungartji ngalya-yanku-nytja-lu mutaka kati-ngu*
 man ANAPH yesterday this way-go-NOML-ERG car (ACC) take-PAST
 'The man who came yesterday took the car.'

c) clause rank circumstance of Purpose - "Intentive clauses"

- 5-25 *wati paluru ya-nu, kuka-kitja*
 man DEF (NOM) go-PAST meat-INTENT (NOM)
 'The man went off, wanting meat.'

d) hypotactic clause complex - "Switch-reference purposive clauses"

- 5-38 *kungka-ngku tii kutja-nu, tjiki-ntji-kitja-ngku*
 woman-ERG tea (ACC) heat-PAST drink-NOML-INTENT-ERG
 'The woman heated some tea to drink.'

e) hypotactic clause complex - "Non-switch-reference purposive clauses"

- 5-45 *ngayulu Yami-nya nyaku-nytja-ku/ Yami-ku pata-ni*
 1sg (NOM) Yami-ACC see-NOML-PURP/ Yami-PURP wait-PRES
 'I'm waiting to see Yami.'

f) hypotactic clause complex - "Circumstantial clauses"

- 5-61 *nganana nyina-nyi, kungka-ngku tina kutja-nytja-la*
 1pl (NOM) sit-PRES woman-ERG dinner (ACC) put to the fire-NOM-LOC
 'We're sitting waiting while a woman prepares lunch.'

Examples d), e) and f) clearly complete the functional paradigm in Table A.2.1, despite the forms of their inflections. Goddard classifies type (f) as 'circumstantial', because the final phoneme in its suffix *-la* is identical to that of the LOCATIVE nominal case inflection, as is the Pitjantjatjara dialectal variant *-nyangka*. However, its logical function in the context of hypotactic clause complexes is clearly identical with that of the so-called SERIAL type in 6-45 'The man speared a kangaroo (while) returning to camp'. The only difference in 5-61 is the Medium reference—so-called 'circumstantial' realises switch Medium while 'serial' realises same Medium, a textual function that Goddard recognises for irrealis "purposive clauses", but denies for realis temporal ones.

There are a number of such problems in Goddard's description, resulting from 'reductive paraphrases' of morphological criteria for semantic labels. Others include classifying manner adverbs nominally as 'active adjectives', because like Medium they inflect for the clause's transitivity (discussed in §5.5.3 above); classifying the single third person pronoun *paluru* 's/he/it' (e.g. 5-1) as the 'DEFinite nominal' because it can also function as a Deictic (e.g. 5-25) (see §3.2.2 above); or glossing the anaphoric clitic *-lta* as temporal conjunctive 'and then', because it can refer to a preceding event, as well as a participant (also §3.2.2 above).

The potential problems for text analysis of misrecognitions such as these are clear. However, following the formalist tradition, Goddard never analyses texts, but only isolated 'sentences', and in his examples there are remarkably few textual features such as implicit Medium, or even conjunctions. The only textual features that do occur are those that have direct equivalents in English, such as personal pronouns and group rank Deictics like *panya* and *paluru*, i.e. 'the'. Constructing examples to illustrate certain proportionalities may be used as a last descriptive resort, but is not a reliable basis for identifying categories, since the complex reality of natural discourse is either missed or dismissed as 'error' or 'noise'.

One of the consequences of these misrecognitions is that the language is made to appear more exotic in comparison to the language of description, English, than it actually is. This in turn has consequences for language education, for non-Anangu learning Yankunytjatjara or Pitjantjatjara (and other languages described in this fashion) but more seriously for Anangu children learning to mean in spoken and written English. The latter is not merely hypothetical

since such descriptions inform Indigenous schools' vernacular literacy curricula. In sum this formalist description extends the previous descriptions of Western Desert dialects, using much the same methodology, but has additional problems created by a reductionist theory of meaning.

On the other hand, the most interesting section of Goddard's thesis is the concluding notes on 'ways of speaking', which include examples and commentary provided by Yankunytjatjara speakers on the discourse varieties 'joking style', 'insult and abuse', euphemisms in bereavement and for bodily functions, and *tjalpawangkantja*, *ayilpiri* and *anitji*. More recently Goddard (1992) has attempted analyses of some of these semantic styles, including a study of *tjalpawangkantja*, in which he gives eleven examples of clauses or brief exchanges, with anecdotal commentary. The linguistic analyses are restricted to:

- i) a few general statements about phonology, of which "I shall have little to say...except that it involves higher pitch, softer volume and slower tempo of delivery, often also with rising intonation";
- ii) identification of nine morphological and lexical items that are characteristic of *tjalpawangkantja*. These include the following:

...the clitic particle *-nti* 'maybe' and the free particles *munta* 'oh' and *wanyu* 'just let' [see §4.4.5 and §4.7, and Eckert & Hudson's alternative glosses of these items in §A.2..5 below. D.R.], which combine to express uncertainty, hesitateness and 'minimisation'. Lexical items like *unytju* (*ngka*) 'not seriously' which explicitly declare a lack of serious intent (Goddard 1992).

...4. *Munta, waru-mpa-l. Nguwan-ampa-na mana-nyi*
 oh fire-interest-I see almost-interest-1sg get-PRES
 'Oh, some firewood, I see. I'd rather like to get some.' (Goddard 1992)

A notable feature of *tjalpawangkany* is the frequency of the clitic particle *-mpa*... For the want of a better label I give the interlinear gloss 'interest'...something like 'one would want to know more about this', or 'one could say more about this'. ...The second sentence of (4) illustrates a polite request locution utilising the word *nguwan* 'almost, rather'. To say *ngayulu waru nguwan mananyi* (lit. 'I almost get some wood') is roughly equivalent functionally to English 'I'd rather like to get some wood' (Goddard 1992).

Goddard has noticed a feature of prosodic realisation, in the frequency of *-mpa* in *tjalpawangkantja*, but struggles with cognitive (i.e. experiential) glosses for this interpersonal item, lacking a model of graded interpersonal assessments. The general interpersonal function of *-mpa* is to non-saliently realise uncertainty or low probability, in contrast to *-nti* median probability, and *-tu* high probability. The function of *-mpa* in the first clause of (4) is to realise uncertainty, i.e. an inquiry about *waru* 'how about some of that firewood?' (see Eckert & Hudson 1988:25), a gloss that Goddard misses with his 'reductive paraphrase' rule, and without an analysis of tone or a model of speech functions. Note also the experiential gloss on the morpheme *-l* as 'I see'; its function is actually a reduced form of *-lta* for referring to a previous message, i.e. 'that firewood (you mentioned)', misrecognised here without a theory of textual meaning.

In the second clause the function of *-mpa* is low probability, i.e. 'I'm possibly nearly getting some firewood'. The gloss Goddard gives, 'I'd rather like to...', is intuitive without a model of speech functions and metaphors of mood and modality. The same subjective metaphor for inclination, as mental projection, is available in the Western Desert, e.g. *ngayulu mukuringanyi*... 'I'd like...' (§4.3.6 above), but it is more direct than

nguwan-ampa-na 'I'm possibly nearly...' which codes inclination more obliquely as low degree 'nearly' and low probability 'possibly'. Such oblique metaphors for demands are also available in English, e.g. 'some firewood might be nice'. Further morpheme and word rank examples Goddard gives include:

... 'generality of reference' (eg.) *nyanga-kutu* 'this ALLative', where the case-marker -*kutu* is used in a secondary sense to give the effect 'somewhere round here' ...direct references to the addressee are carefully avoided, as are vocatives [see counter-example in Eckert & Hudson below; deferential Vocatives are the norm in *tjalpawangkantja*, see §4.8 below. D.R.] ...the use of the switch-reference connective *ka* 'CONTRastive' allows the speaker to avoid referring to the addressee (Goddard 1992).

In the discussion that follows, Goddard makes no further reference to his glosses on the examples, and also rejects the ethnographic insights of Tonkinson (1978), Haviland (1979) and Sutton (1982), claiming that their

...descriptive labels like 'respect' and 'hierarchy' are far from culture-neutral, but rather represent English-specific sociocultural concepts. Wierzbicka (1991:71) goes so far as to reject all such terms as 'simply not helpful in the elucidation of cultural differences'.

The alternative for Goddard is to resort to intuitions about the psychology of speakers, legitimated in Wierzbicka's reductive universalist theory of 'semantic primitives' as a 'natural semantic metalanguage'. His intuitions about the meaning of *tjalpawangkantja* are listed as follows (sic):

- a. I know who this person is.
- b. This person is someone not like me.
- c. I don't want this person to think anything bad about me.
- d. I don't want to say anything to this person.
- e. If I have to say something, I have to think about it.

The conclusion drawn from these somewhat paranoid interpretations of Anangu speakers' inner thoughts is that:

...the illocutionary proscriptions (of *tjalpawangkanyi*) prohibit one from directly expressing that the addressee plays a clear part in one's motives for speaking... perhaps the easiest way of 'pulling this off' is to pretend, and behave as if, the addressee is not present at all.

The formalist view of language as constraining rather than enabling the production of meaning is projected here onto its social contexts, as 'illocutionary proscriptions' that 'prohibit' speakers from expressing their feelings. There is little place here for language as social exchange, rather grammar is a vehicle carrying a few morphemes whose effect is intended to mask the motives of the speaker. The analysis is interesting more for what it reveals about the ideology underlying an asocial linguistic theory than about the social contexts of *tjalpawangkantja*.

A.2.5 Eckert and Hudson 1988

While Eckert and Hudson's (1988) *Wangka Wiru: a handbook for the Pitjantjatjara language learner* is not intended as an academic description, it contains many socio-semantic insights lacking from formalist accounts such as Goddard's, perhaps because the writers were experienced speakers of Pitjantjatjara before coming to linguistics, and because its purpose is

for learning the language to communicate with native speakers rather than describing it to communicate with linguists. Nevertheless the organisation of *Wangka Wiru* and most of its grammatical categories are based on the traditional formalist framework, influenced in particular by Goddard. It begins like standard formalist descriptions, in the expression plane with 'spelling' and 'pronunciation', and moves up through morphology or 'endings that bind words into sentences', word classes including demonstratives, nouns, adjectives, pronouns, adverbs, verbs, transcategorisation called 'making new words' and finally 'complex sentences'.

However, dispersed in this standard account are also categories of interpersonal meaning that are usually ignored or marginalised by formal linguists. These include many interpersonal features in an early section called 'Getting Started' including greetings, calls, *nya*-questions, commands, continuatives, responses to questions, exclamations and modal assessment items, and a separate section on 'question words' (i.e. *Nya*-elements). Each of these features is contextualised in copious examples of exchange pairs, often including cultural information. The following example (1988:44) is from a section on 'polite speech', in a subsection on the modal items *wanyu* and *puta*, and illustrates differences in the interpersonal features of affinal (in-law) and agnate (sibling) kin registers.

Wanyu and Puta

Person A in the following dialogue is listening to a rather long story by his brother-in-law, Person B. However A wants to catch the store before it shuts and so speaks to interrupt.

Dialogue 1

- A: Marutju! Wanyu-na puta tjuwaku ankuku?
 brother.in.law would.you-I do.you.think store.to will.go
 Brother-in-law! Would you mind if I go to the store, what do you think?
- B: Munta-uwa manti palyampa
 sorry yes might alright
 Oh sorry yes, that's alright (sure).

If Person B were a brother, then the following dialogue might be heard.

Dialogue 2

- A: Wanyu wanti ka-na tjuwaku ara
 let's.just leave.off and-I store.to go
 Let's just leave off (for the moment) while I go to the store.
- B: Nyuntu puta wanyu ngalya-kati ngayuku?
 you do.you.think please toward-bring for.me
 Do you think you could bring something for me please?

While these are constructed exchanges, Eckert and Hudson are able to present systematic semantic contrasts between the affinal and agnate examples. These include:

- i) in Dialogue 1, A: the deferential Vocative *marutju*, with a yes-no question as a metaphor for a command ('let me go!'), and B: deferential iteration of probability in the response *manti* 'probably' *palya-mpa* 'alright-possibly' (although the latter clitic is not glossed in the example);
- ii) in Dialogue 2, A: direct imperatives expressing obligation and inclination (most likely the older brother speaking) and B: a demand for goods ('bring me something!') coded metaphorically as a yes-no question (most likely the younger brother speaking).

Interestingly, although the overt focus of the description is on word rank, such as *wanyu* and *puta*, the semantic contrasts displayed are actually at the rank of move and exchange, subverting the disembodied word-based organisation of the description. Another example of this contradiction between semantic focus and theoretical limitations is in the description of the function of word order in nominal groups, mentioned earlier in §2.6.5.1 in Chapter 2. Eckert and Hudson, following Goddard (1985), recognise that “unlike English, the demonstratives can take more than one position in a phrase” (1988:84–102), but claim that it realises an experiential contrast they label ‘restrictive’ and ‘non-restrictive’. Many constructed examples are used to try to demonstrate this experiential explanation, e.g. (from Eckert & Hudson 1988:84):

Demonstratives acting restrictively:

Papa	nyarangku	ngayunya	patjanu
dog	yonder(sub T)	me	bit

The dog over there bit me...

Demonstratives acting non-restrictively:

Nyara	papangku	ngayunya	patjanu
yonder	dog(sub T)	me	bit

The dog over there bit me

Papangku	nyara	ngayunya	patjanu
dog(sub T)	yonder	me	bit

It was a dog over there that bit me...

The function of *nyara* in the first and second examples is Deictic, i.e. the group rank function that Eckert and Hudson suggest, but the function of the contrast between them is not experiential but rhythmic, the stress in the first example is on the Deictic, | papa | **nyara**-ngku |, while in the second example the stress is on the Thing, | nyara | **papa**-ngku |. These alternatives for stress allow either element to receive the culminative tonic focus. On the other hand the function of *nyara* in the third example is clause rank, as a circumstance of Place; it is not an alternative position in the nominal group. The inflection is always on the final constituent of a group, as follows:

<i>papa-ngku</i>	<i>nyara</i>	<i>ngayu-nya</i>	<i>patja-nu</i>
Actor	Place	Goal	Process

A dog bit me over there.

Intuitively Eckert and Hudson come close to recognising the distinction between the Deictic function of assigning definiteness and the experiential function of Place, in the following definitions (Eckert & Hudson 1988:100):

- (1) restrictively when (demonstratives) serve to point out which of two or more similar things is being referred to [ie. definiteness, D.R.]
- (2) non-restrictively when the focus is purely on the whereabouts of the thing being referred to [ie. Place, D.R.]

The difficulty in recognising the clause rank circumstantial function of *nyara* arises from the formalist focus on overt markers as descriptive criteria, e.g. the locative case inflection *-ngka* as the sole criterion of Place. In fact *nyara* can function as a circumstance, equally as well as *nyara-ngka* (exemplified in Text [3:2] above) but *nyara* is a textually backgrounded variant, a textual contrast that Goddard also attempts to interpret experientially (see Chapter 3, fn. 3 above). The postulated ‘restrictive-non-restrictive’ semantic distinction arises from

the universalist preoccupation with finding experiential functions for constituent order in languages other than English. Constituent order is not used to realise contrasts in either experiential or interpersonal meanings in Western Desert, only textual ones. It is significant therefore that Eckert and Hudson have glossed the third constructed example as textually marked, with an English predicated Theme *It was a dog over there that bit me*, i.e. they are able to recognise a textual contrast, if not describe it.

While Eckert and Hudson's descriptive technique follows academic formalists in focusing on overt word and morpheme rank realisations, their contrastive examples illustrate how these items function in context, making their description more useful, while implicitly demonstrating the inadequacy of the 'bricks&mortar' approach to language description. While the role of intonation is left largely implicit in these examples, it is suggested by punctuation such as question marks implying rising tone, and exclamation marks suggesting high falling tone. Tone is only addressed explicitly in a small subsection of the section on 'question words', entitled 'questions without question words'. "In Pitjantjatjara you may ask a question without using a question word by simply raising the pitch of your voice as you speak the sentence (without changing the word order)" (1988:128).

Nevertheless Eckert and Hudson have taken a significant step beyond standard formalist accounts by foregrounding the communicative role of interpersonal features and giving them a separate treatment. In addition they provide useful information on experiential resources at word and morpheme ranks, which I do not cover in as much detail in the survey below. Their account is also interesting and useful because it compares realisations of similar meanings in English and Pitjantjatjara wherever possible. An example is the explanation of rising pitch for yes-no questions, in which they begin by pointing out that "To ask a question in English without using a question word the order of the words is changed around. For example 'He can see it' becomes a question when the first two words change places 'Can he see it?'"', echoing Halliday's (1994a) account of the role of Subject and Finite in English. Unfortunately, despite these advances towards a communicatively oriented description, I know of no European who has learnt Pitjantjatjara by studying it from manuals or tapes. Despite being perhaps the most widely studied and taught Australian language, there remain only a handful of fluent non-Anangu speakers, all of whom have been taught it by the people themselves, in its social contexts.

In the absence of systematic descriptions that are sensitive to interpersonal meanings in Australian languages, there has been a tendency to find exotic types of indigenous 'communication styles'; examples include Goddard (1992), Harkins (1994) and Walsh (1997a). While all of these writers are sympathetic to the indigenous communities in which they conduct linguistic fieldwork, their findings need to be viewed in the light of what Halliday (1994a:xxxi) refers to as "an overview of the [interpersonal] grammatical system; both in order to confront one part of it with another, and in order to interpret texts construed in the code", as well as an articulated model of register and metafunction. The lack of a systematic framework for interpreting the interpersonal dimension of texts in formally oriented descriptions results in a tendency to extrapolate from fragments of personal experience to generalise about interaction in indigenous (and European) cultures.

For example Goddard (1992), as discussed in §A.2.4 above, characterises the function of the affinal register *tjalpawangkantja* as "to pretend, and behave as if, the addressee is not present at all", whereas its function is actually only different in degree from comparable registers in English or any other language for expressing mutual respect. Harkins (1994:167) claims that "the bare imperative" in indigenous languages and Aboriginal English realises

both polite request and direct command, on the basis of observations of indigenous children speaking English.

At the illocutionary level, the bare English imperative, *Give me X*, is to non-Aboriginal speakers abrupt, forceful, and marked for lack of politeness. But Aboriginal speakers reanalyse its illocutionary force on the basis of their knowledge of other languages in which the bare imperative is the unmarked form, and they both interpret and use the English imperative as their standard, unmarked form for requests.

Walsh (1997a) contrasts 'dyadic', 'contained' communication in 'Anglo culture' with 'communal', 'continuous' communication in Aboriginal culture, which he calls "a fundamentally different style of interaction", in which "talk is not being directed towards any particular individual. It is just being broadcast".

What is required to contextualise these observations is a theory of register that can systematically relate interpersonal features of discourse to variations in the tenor of interactants' relationships, of status, contact and solidarity. Goddard explicitly rejects ethnographic insights about "status" and "respect" in favour of Wierzbicka's 'natural semantic metalanguage', which in practice means a projection of the linguist's intuitions. Harkins extrapolates from the limited resources of indigenous children for adjusting the force of proposals in English, to characterise indigenous culture in general. She seems not to recognise that in English *Give me X* is only 'abrupt, forceful, and marked for lack of politeness' when social distance or status require modulated 'polite' demands, and that such tenor relations, and the modulated demands that realise them, are a feature of adult discourse in both cultures (e.g. *tjalpawangkantja*). Walsh contrasts styles of interaction in indigenous and 'Anglo' cultures by extrapolating from communication difficulties he experienced as "a naive and earnest newcomer to Aboriginal Australia" and "aberrant" behaviour in the courtroom" of indigenous witnesses, contrasted with his experience of 'dyadic', 'contained' communication in academic seminars. The type of 'communal' communication Walsh finds in indigenous cultures is exemplified by the register *alpiri*, for exchanging 'morning news' in large camps (see Chapter 4, fn. 8). However, Chapter 4 of the *Western Desert code* shows that 'dyadic' interaction is also characteristic of Western Desert language, and is as much the basis of the grammar of mood and modal assessment as it is in English. It is my hope that the survey here will help to inform balanced accounts of the interpersonal features of Australian languages and their cultures.

A.2.6 Bowe 1990

Bowe's (1990) description of *Categories, constituents and constituent order in Pitjantjatjara* is a formally-oriented academic description, but attempts to move beyond the limitations of Dixon's morphologically constrained model of transitivity to explore the implications of textual organisation in the clause. Nevertheless Bowe is still limited by the lack of a metafunctional theory, so that variations in 'constituent order' are interpreted in terms of either experiential meaning, and/or rules of 'grammaticality', i.e. the role of textual sequence is still construed as a constraint rather than a resource for making meaning.

Bowe's work is framed within the typological interests of Bernard Comrie (e.g. 1981), and is primarily concerned to establish unmarked or 'syntactically basic order' for nominal groups and clauses, from which 'pragmatics of word order variation may well be achieved by contrast' (1990:5). The 'basic order' of clauses is described in terms of structural rules as "a sentence initial focus position, a pre-sentential topic position, and a post-verbal afterthought or anti-topic position" (1990:viii) rendered as the formula:

TOPIC [S FOCUS [...VERB] ANTI-TOPIC].

This sequence reflects the examples of textual structure we gave in Chapter 1, examples [1:1"] and [1:2"], including experiential Theme ('topic'), followed by New ('focus') and a potential late New element after the Process ('anti-topic'). While the role of 'topic' is partially equivalent to the functional category Theme, Bowe ignores textual and interpersonal Themes (with the exception of the reportative adjunct *kunyu*), so that interpersonal elements, such as modal Adjuncts and Vocatives, are not included in her analysis of the category 'topic' (see Halliday's 1994a:38 discussion of the shortcomings of 'Topic-Comment' terminology).

The description is based on clauses either extracted from transcribed stories, or constructed, without analysis of either tone groups, or of textual functions in discourse. 'Focus' for Bowe is realised by position in the sequence of clause constituents, rather than by tonic focus, so she recognises only one pre-verbal focus position per clause, whereas we have shown in Texts [1:1] and [1:2] that tonic focus may occur in any position and several at once. A major example of missed textual functions is that of clitic pronouns, which Bowe interprets in terms of syntactic rules as defining 'grammatical sentences'.

Clitics cannot generally be attached to the object, if the object is followed by a subject, as seen in (10) and (11).

- (10) ?Punu-na ngayulu mantji-nu
 wood-1sgNOM 1sgNOM get-PAST
 'I got some wood.'
- (11) ?Punu-ni wati-ngku u-ngu
 wood-1sgACC man-ERG give-PAST
 'The man gave me some wood.'

The grammatically preferred versions of these sentences are given in (12) and (13).

- (12) Punu ngayulu-na mantji-nu
 wood 1sgNOM-1sgNOM get-PAST
 'I got the wood myself.'
- (13) Punu wati-ngku-ni u-ngu
 wood man-ERG-1sgACC give-PAST
 'The man gave me some wood.'

These facts would be consistent with the hypothesis that the word order OSV may result from a topicalization of the object, and that the topicalized object may be outside the domain of the core sentence for the purposes of clitic placement (1990:114).

Bowe is certainly on the right track that the 'object' here is 'topicalized' (thematized), but is not conscious of the discourse organising function of thematisation. However the relation between thematicity and definiteness is displayed incidentally (i.e. unconsciously) in the different glosses given to (10) 'I got some wood.' and (12) 'I got the wood myself.' The Range *punu* is point of departure (i.e. thematised) in any of these examples, precisely because its identity is recoverable in the preceding discourse. In natural Pitjantjatjara discourse its recoverability would most likely also be identified anaphorically as *punu panya* 'the wood (mentioned previously)'. Likewise the assignment of pre-verbal focus to the Medium *ngayulu-na* is contrastive with an alternative identity in the preceding discourse, 'I got the wood myself (instead of someone else)'. But Bowe is incorrect in believing that (13) is 'grammatically preferred' over (11). In fact (11) makes perfect sense and is a far more likely

choice. The whole structure functions exactly as a passive clause in English ‘firewood was given me by a man’ (see Bowe’s gloss on (15) below). It means that the Range1 (gift) *punu* ‘wood’ and Range2 (recipient) *ni* ‘me’ are both Given and Theme, while the identity of the Medium (giver) *wati-ngku* ‘a man’ is in focus as New. On the other hand Bowe’s ‘grammatically correct’ example (13) is actually semantically confusing because *wati* seems to be functioning as a Classifier, *punu wati-ngku* ‘wood man’.

The function of clitic pronouns is not to define ‘grammaticality’ but to track identities of participants through discourse, in the Theme of each clause, while allowing other elements to be salient Themes. That is, clitic pronouns are appended to salient thematic elements, so the Theme of each clause extends up to and includes the clitic pronoun. This is perfectly illustrated, although unrecognised, in Bowe’s next example of ‘a question and answer pair’ (1990:114), for which I have underlined the Themes.

- (14) Billy-lu-nta nyaa u-ngu
 Billy-ERG-2sgACC what give-PAST
 ‘What did Billy give you?’

- (15) Punu-ni paluru u-ngu
 wood-1sgACC 3sg-NOM give-PAST
 ‘Wood is what he gave me.’

In (14) both the giver *Billy-lu* and the recipient ‘you’ are Given and therefore unmarked Theme, with the identity of ‘you’ realised as a Theme final clitic pronoun *-nta*. The identity of the gift is demanded by the *Nya*-element *nyaa?* ‘what’, and although Bowe does not provide an analysis of tonicity, we can assume that this is the location of tonic focus, realising New. In the response (15) the identity of this element is re-presented as Theme *punu*, in the same pattern as our examples [1:1] and [1:2: 1=2], and we can assume that it is presented with tonic focus as marked New, since it precedes the Medium *paluru* ‘he’. Again the recipient ‘me’ is tracked as a Theme final clitic pronoun *-ni*. The information and thematic structure of the exchange pair is diagrammed in Figure A.2.3:

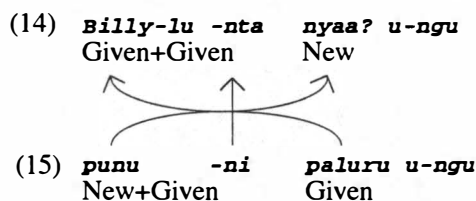


Figure A.2.3: Theme and information structure of exchange pair (14-15)

The identity of the recipient is tracked thematically by clitic pronouns *-nta* and *-ni*. The identity of the gift is demanded as New *nyaa?* in (14) and responded to as marked New/Theme *punu* in (15). The Given identity of the giver *Billy-lu* is Theme in (14) but Rheme *paluru* in (15) to make room for the marked Theme *punu*. When the discourse organising functions of ‘topic’ (Theme) and ‘focus’ (New) are recognised, Bowe’s struggle to identify experiential functions such as “domain of the core sentence” becomes unnecessary.

Despite the drawbacks of Bowe’s analysis it represents a considerable advance over the mainstream of formalist descriptions in Australia in its approach to textual meaning.

A.2.7 Revisiting THEME, TONALITY and TONICITY

From the discussion in Chapter 3, of the neutral and marked patterns of THEME, TONALITY and TONICITY, we are in a position to re-interpret Bowe's (1990) characterisation of 'syntactically basic order' in Pitjantjatjara as "TOPIC [S FOCUS [.....VERB] ANTI-TOPIC]", and by implication the universalist 'constituent order' theories of Comrie (e.g. 1981), Givón (e.g. 1983), Greenberg (e.g. 1966), Chafe (e.g. 1976) and others on which it is based (see §A.2.6 above). I have tried to show here that what these writers interpret as a single structural potential actually refers to three independently variable systems realising different options in textual meaning.

Firstly Bowe (et al.)'s obligatory 'TOPIC' refers to experiential Theme (as Halliday first described as early as 1967b). As we have seen for Western Desert, Themes usually do indeed include an overt experiential element. However the notion of 'topic' fails to include not only textual and interpersonal Themes (which Halliday has also consistently pointed out, e.g. 1994a), but also minor clauses with no experiential function, such as exclamatives. Furthermore Bowe's structural formula does not account for cliticised identities that are also part of the Theme, in addition to other salient experiential Themes, because it does not recognise the role of Theme in participant identification. In attempting to find a clause internal syntactic rule for word order, the text organising function of 'topic' is completely overlooked.

Secondly, Bowe locates the 'syntactically basic' 'FOCUS' in pre-verbal position, rather than clause final, an interpretation that Comrie (1981) applies to other so-called 'SOV' languages. The reason for missing the culminative pattern of information focus is that they interpret 'FOCUS' purely in terms of constituent order, as though its realisation was lexicogrammatical rather than the phonological system that Halliday described as early as 1967a. As we have seen, the tonic focus often does fall on the 'pre-verbal' element, when the process is treated as a grammatical item, as in relational clauses in Western Desert (and presumably other languages with optional relational processes). Even when the tonic focus does precede a relational verb it is usually on elements other than 'S' (i.e. Medium), e.g. in Text [3:4], Location *manta nyangangka*, Range *waru kurakura*, or Quality *watarku* or it may be on interpersonal elements such as *putu*. As we have shown, the tonic focus may also be conflated with the experiential Theme or 'topic'. When the process is the last lexical element it typically is focused, precisely because it is the New element. This is brought out clearly in clauses 5, 6 and 7 of Text [1:2] where the tonic focus is on lexical processes.

Text [1:2"]

- | | | | |
|----|------------------------------|------------------|----------------------|
| +5 | // ^ <u>munu</u> <u>pula</u> | / kuka / kanyila | / kati-ngu // |
| | and-SM they 2 | wallaby game | did bring back |
| +6 | // ^ <u>ka</u> <u>pula</u> | / mai-ku | / tjaru-ukali-ngu // |
| | and-SW they 2 | for food | did descend down |
| +7 | // ^ <u>munu</u> <u>pula</u> | / mai ili | / ura-ningi // |
| | and-SM they 2 | fig food | were collecting |

Finally, Bowe's 'ANTI-TOPIC' refers to two options in TONALITY, the late New element on a separate tone group, as well as the minor information point in compound tone groups. Both these intonational features may elaborate the element functioning as experiential Theme, but they may also be any other element of clause structure. The so-called 'anti-topic' is not directly related to 'topic' (i.e. experiential Theme); rather the systems of THEME and

INFORMATION are independent. The point of course is that all these categories are functional, and not purely 'syntactic'. Bowe is correct in noting that the "pragmatics of word order variation may well be achieved by contrast" from these unmarked textual structures, if we can interpret 'pragmatics' in terms of function in context. What is overlooked is that there are three systems of textual options that are in tension here, and each of these options means differently. Options in THEME specify the speaker's point of departure for a message: experiential, interpersonal and textual, and whether it is more or less prominent. In the unmarked variant, the Theme of a message is also Given information and its point of arrival is New. However there may be more than one New element in a message, and it may be conflated with Theme, so the options in TONALITY and TONICITY are independently variable.

Each of these options for clauses and tone groups only makes sense in the context in which they are spoken, of the text and the situation. This is an immensely elaborate semiotic process that cannot be meaningfully described by reducing it to universal structural formulae. Using the elaborate meta-textual resources developed in SFL, I have attempted to illustrate how the textual resources of the Western Desert language mean what they do. I hope this will open up opportunities for further research into the textual organisation of Australian languages.

References

- Abercrombie, D., 1967, *Elements of general phonetics*. Edinburgh: Edinburgh University Press.
- Alpher, B. and D. Nash, 1984, Lexical replacement and cognate equilibrium in Australia. *Papers presented to the annual meeting of the Australian Linguistics Society, August, Alice Springs*, 17–44.
- Ammerman, A.J. and L.L. Cavalli-Sforza, 1987, *The neolithic transition and genetics of populations in Europe*. Princeton, N.J.: Princeton University Press.
- Austin, P., 1981, Switch reference in Australia. *Language* 57/2:309–334.
- 1988, *Complex sentence construction in Australian languages*. Amsterdam: Benjamins.
- Barnwell, K., 1969, A grammatical description of Mbembe (Adun Dialect): a cross river language. PhD thesis, University of London.
- Bernstein, B., 1971–90, *Class, codes and control: Volumes I-IV*. London: Routledge.
- 1990, *The structuring of pedagogic discourse: Volume IV of Class, codes and control*. London: Routledge.
- 1996, *Pedagogy, symbolic control and identity: theory, research, critique*. London: Taylor & Francis.
- Blake, B., 1983, Structure and word order in Kalkatungu: the anatomy of a flat language. *Australian Journal of Linguistics* 3:143–175.
- 1988, Re-defining Pama-Nyungan: towards the pre-history of Australian languages. In N. Evans and S. Johnson, eds *Aboriginal linguistics*, 1:1–90. Armidale: University of New England.
- Bowe, H., 1990, *Categories, constituents and constituent order in Pitjantjatjara, an Aboriginal language of Australia*. London: Routledge.
- Bresnan, J., ed., 1982, *The mental representation of grammatical relations*. Cambridge, Mass.: MIT Press.
- Butt, D., 1996, Theories, maps and descriptions: an introduction. In Hasan, Cloran and Butt, eds 1996:xv–xxv.
- Caffarel, A., 1995, Approaching the French clause as a move in dialogue: interpersonal organisation. In Hasan and Fries, eds 1995:1–49.
- in press, A metafunctional profile of French clause grammar: a typological perspective. In A. Caffarel and J.R. Martin, eds.

- Caffarel, A. and J.R. Martin, eds, in press, *Language typology: a functional perspective*. Amsterdam: Benjamins.
- Cane, S., 1990, Desert demography: a case study of pre-contact Aboriginal densities in the Western Desert of Australia. In B. Meehan and N. White, eds *Hunter-Gatherer demography: past and present*. Oceania Monographs No. 39. Sydney: The University of Sydney, 149–159.
- Capell, A., 1956, *A new approach to Australian linguistics*. Oceania Linguistics Monographs No. 1. The University of Sydney.
- 1979, The history of Australian languages: a first approach. In S. Wurm, ed. *Australian linguistic studies*, 419–619. Canberra: Pacific Linguistics.
- Cavalli-Sforza, L.L., P. Menozzi and A. Piazza, 1994, *The history and geography of human genes*. Princeton: Princeton University Press.
- Chafe, W., 1976, Givenness, contrastiveness, definiteness, subject, topics and point of view. In C.N. Li, ed. *Subject and topic*, 25–55. New York: Academic Press.
- Chafe, W. and J. Nichols, 1986, *Evidentiality: the linguistic coding of epistemology*. Norwood: Ablex.
- Chappell, H. and W. McGregor, eds, 1995, *The grammar of inalienability: a typological perspective on body parts and part-whole relations*. Berlin: Mouton de Gruyter.
- Christie, F. and J.R. Martin, eds, 1997, *Genres and institutions: social practices in the workplace and school*. London: Cassell.
- Clark, J. and C. Yallop, 1990, *An introduction to phonetics and phonology*. Oxford: Basil Blackwell.
- Cléirigh, C., 1998, The genesis of phonic texture. PhD thesis, The University of Sydney.
- Comrie, B., 1981, *Language universals and linguistic typology: syntax and morphology*. Oxford: Basil Blackwell.
- Crosby, A.W., 1997, *The measure of reality: quantification and western society, 1250–1600*. Cambridge: Cambridge University Press.
- de Beaugrande, R., 1997, Society, education, linguistics and language: inclusion and exclusion in theory and practice. *Linguistics and Education* 9/2:99–158.
- de Saussure, F., 1966, *Course in general linguistics*. New York: McGraw-Hill.
- Deacon, T., 1997, *The symbolic species*. London: Penguin.
- Degand, L., 1996, Causation in Dutch and French: interpersonal aspects. In Hasan, Butt and Cloran, eds 1996:207–236.
- Dixon, R. M. W., 1972, *The Dyirbal language of North Queensland*. Cambridge: Cambridge University Press.
- 1979, Ergativity. *Language* 55:59–138.
- 1980, *The languages of Australia*. Cambridge: Cambridge University Press.
- 1994, *Ergativity*. Cambridge: Cambridge University Press.

- Douglas, M., 1966, *Purity and danger: an analysis of concepts of pollution and taboo*. London: Routledge & Kegan Paul.
- Douglas, W.H., 1964, *An introduction to the Western Desert language*. Oceania Linguistic Monographs 4. Sydney: The University of Sydney.
- 1988, *An introductory dictionary of the Western Desert language*. Perth: Institute of Applied Language Studies: WACAE.
- Duguid, C., 1972, *Doctor and the Aborigines*. Sydney: Angus & Robertson.
- Dumezil, G., 1968, *The destiny of the warrior*. Chicago: University of Chicago Press.
- Durkheim, E., 1912, reprinted 1976, *The elementary forms of the religious life*. London: Allen & Unwin.
- Eckert, P. and J. Hudson, 1988, *Wangka Wiru: a handbook for the Pitjantjatjara language learner*. Adelaide: University of South Australia.
- Edelman, G., 1992, *Bright air, brilliant fire: on the matter of the mind*. London: Harper Collins (Basic Books).
- Elkin, A.P., 1993, *Aboriginal men of high degree: initiation and sorcery in the world's oldest tradition*. New York: Inner Traditions.
- Ellis, C.J., L. Barwick and M. Morais, 1990, Overlapping toime structures in a Central Australian women's ceremony. In P. Austin, R.M.W. Dixon, T. Dutton and I. White, eds *Language and history: essays in honour of Luise A. Hercus*, 101–136. Canberra: Pacific Linguistics.
- Evans, N., 1988, Arguments for Pama-Nyungan as a genetic subgroup, with particular reference to initial laminalization. In N. Evans and S. Johnson, eds *Aboriginal linguistics 1*: 91–110. Armidale: University of New England.
- 1992, Multiple semiotic systems, hyperpolysemy, and the reconstruction of semantic change in Australian languages. In G. Kellerman and M. Morrissey, eds *Diachrony within synchrony: language history and cognition*, 137–155. Frankfurt: Peter Lang.
- Evans, N. and R. Jones, 1997, The cradle of the Pama-Nyungans: archaeological and linguistic speculations. In McConvell and Evans, eds 1997: 385–418.
- Fang, Y., E. McDonald and M. Cheng, 1995, On theme in Chinese: from clause to discourse. In Hasan and Fries, eds 1995: 235–274.
- Field, J., 1996, *Dinnertime at Cuddie Springs: hunting and butchering megafauna? Report prepared for the Brewarrina Local Aboriginal Land Council*. Sydney: The University of Sydney.
- Firth, J.R., 1957, *Papers in linguistics 1934-51*. London: Oxford University Press.
- Flannery, T., 1994, *The future eaters*. Melbourne: Reed Books.
- Foley, W.A., 1986, *The Papuan languages of New Guinea*. Cambridge University Press.
- Foley, W. and M. Olson, 1985, Clausehood and verb serialisation. In J. Nicholls and A. Woodbury, eds *Grammar inside and outside the clause: some approaches to theory from the field*, 17–60. Cambridge: Cambridge University Press.

- Fries, P., 1981, On the status of theme in English: arguments from discourse. *Forum Linguisticum* 6(1):1–38.
- 1995, Themes, methods of development and texts. In R. Hasan and P.H. Fries, eds 1995:317–359.
- Gale, F., 1974, *Woman's role in Aboriginal society*. Canberra: AIAS.
- Gale, M., 1994, Dhangum Djourra'wuy Dhawu: a brief history of writing in Aboriginal languages. *The Aboriginal Child at School* 22/2:33–42.
- Gamkrelidze, T. and V. Ivanov, 1990, The early history of the Indo-European languages. *Scientific American* March 1991:110–116.
- Gimbutas, M., 1990, *The goddesses and gods of old Europe*. London: Thames & Hudson.
- Givon, T., 1983, *Topic continuity in discourse: a quantitative cross-language study*. Amsterdam: Benjamins.
- Glass, A. and D. Hackett, 1970, *Pitjantjatjara grammar: a Tagmemic view of Ngaanyatjara (Warburton Ranges) dialect*. Canberra: AIAS.
- Gleason, H.A., 1968, *Contrastive analysis in discourse structure*. Monograph Series on Languages and Linguistics 21. Georgetown University Institute of Languages and Linguistics. (Reprinted in Makkai, A.D. and D. Lockwood, 1972. *Readings in stratificational linguistics*. University, AL.: University of Alabama, 258–76).
- Goddard, C., 1985, *A semantically-oriented grammar of Yankunytjatjara*. Alice Springs: Institute for Aboriginal Development.
- 1990, Emergent genres of reportage and advocacy in the Pitjantjatjara print media. *Australian Aboriginal Studies* 2:27–47.
- 1992, Traditional Yankunytjatjara ways of speaking: a semantic perspective. *Australian Journal of Linguistics* 12:93–122.
- Goddard, C. and A. Wierzbicka, 1994, *Semantic and lexical universals: theory and empirical findings*. Philadelphia: Benjamins.
- Gray, B., 1986, Aboriginal education: some implications of genre for literacy development. In C. Painter and J.R. Martin, eds *Writing to mean: teaching genres across the curriculum*, 188–208. Occasional papers No. 9, Applied Linguistics Association of Australia, The University of Sydney.
- 1990, Natural language learning in Aboriginal classrooms: reflections on teaching and learning style for empowerment in English. In C. Walton and W. Eggington, eds *Language: maintenance, power and education in Australian Aboriginal contexts*, 105–109. Darwin: NTU Press.
- Greenberg, J., 1987, *Language in the Americas*. Stanford: Stanford University Press.
- Greenberg, J., ed., 1966, *Universals of language*. Cambridge Mass: MIT Press.
- Hale, K., 1971, A note on a Walbiri tradition of antonymy. In D.D. Steinberg and L.A. Jakobovits, eds *Semantics: an interdisciplinary reader in philosophy, linguistics and psychology*, 472–484. Cambridge, Mass: Cambridge University Press.

- 1983, Warlpiri and the grammar of non-configurational languages. *Natural Language and Linguistic Theory* 1:5–74.
- Halliday, M.A.K., 1956, Grammatical categories in modern Chinese. *Transactions of the Philological Society* 177–224.
- 1959, *The language of the Chinese secret history of the Mongols*. London: Longman.
- 1967a, *Intonation and grammar in British English*. The Hague: Mouton.
- 1967b, Notes in transitivity and theme in English 1. *Journal of Linguistics* 3(1):37–81.
- 1973, *Explorations in the functions of language*. London: Edward Arnold.
- 1975, *Learning how to mean: explorations in the development of language*. London: Edward Arnold.
- 1977, Ideas about language. In M.A.K. Halliday, *Aims and perspectives in linguistics*, 32–49. Applied Linguistics Association of Australia (Occasional papers 1).
- 1978, *Language as a social semiotic: the social interpretation of language and meaning*. London: Edward Arnold.
- 1987, Spoken and written modes of meaning. In R. Horowitz and S.J. Samuels, eds *Comprehending oral and written language*, 55–82. New York: Academic Press.
- 1989, *Spoken and written language*. Geelong: Deakin University Press/Oxford: Oxford University Press.
- 1993, *Language in a changing world*. Canberra: Applied Linguistics Association of Australia, Occasional Paper No 13.
- 1994a, *An introduction to functional grammar*. London: Arnold.
- 1994b, On language in relation to the evolution of human consciousness. Paper prepared for Nobel Symposium 92 *The relation between language and mind*, Stockholm, 8–12 August 1994.
- 1996a, On grammar and grammatics. In Hasan, Butt and Cloran, eds 1996:1–38.
- 1996b, Some interpersonal particles in Cantonese. Paper delivered at the *SFL Language Typology Workshop*, The University of Sydney, December 1996.
- 1998, Things and relations: regrammaticising experience as technical knowledge. In Martin and Veel, eds 1998:185–235.
- Halliday, M.A.K. and R. Hasan, 1976, *Cohesion in English*. London: Longman (English Language Series 9).
- Halliday, M.A.K. and Z.L. James, 1993, A quantitative study of polarity and primary tense in the English finite clause. In J.M. Sinclair, M. Hoey and G. Fox, eds *Techniques of description: spoken and written discourse*, 32–66. London: Routledge.
- Halliday, M.A.K. and E. McDonald, in press, Chinese: a metafunctional profile. In Caffarel and Martin, eds.
- Halliday, M.A.K. and C.M.I.M. Matthiessen, 1999, *Construing experience through meaning: a language-based approach to cognition*. London and New York: Cassell.

- 1993, *Writing science: literacy and discursive power*. London: Falmer (Critical perspectives on literacy and education).
- Hansen, K., 1984, Communicability of some Western Desert communilects. In J. Hudson and N. Pym, eds *Language survey*. 1–112. Work papers of SIL-AAB, B-11:1–112. Darwin: Summer Institute of Linguistics.
- Hansen, K. and L. Hansen, 1978, *The core of Pintupi grammar*. Summer Institute of Linguistics and Alice Springs: Institute for Aboriginal Development.
- Harkins, J., 1994, *Bridging two worlds: Aboriginal English and crosscultural understanding*. St Lucia: University of Queensland Press.
- 1997, Desire in language and thought: a study in cross-cultural semantics. PhD thesis, The Australian National University.
- Harvey, M., 1997, The temporal interpretation of linguistic diversity in the Top End. In McConvell and Evans, eds 1997:323–384.
- Hasan, R., 1977, Text in the systemic-functional model. In W. Dressler, ed. *Current trends in textlinguistics*, 228–246. Berlin: Walter de Gruyter.
- 1984, Ways of saying, ways of meaning. In R. Fawcett et al., eds *The semiotics of culture and language*, vol. 1, 105–162. London: Pinter.
- 1987, The grammarian's dream: lexis as most delicate grammar. In M.A.K. Halliday and R.P. Fawcett, eds *New developments in systemic linguistics, vol. 1: theory and description*, 184–211. London: Pinter.
- Hasan, R., D. Butt and C. Cloran, eds, 1996, *Functional descriptions: language form and linguistic theory*. Amsterdam: Benjamins.
- Hasan, R. and P.H. Fries, eds, 1995, *On subject and theme: a discourse functional perspective*. Amsterdam: Benjamins.
- Haviland, J., 1979, Guugu-Yimidhirr brother-in-law language. *Language in Society* 8:365–393.
- Heath, J., 1984, *Functional grammar of Nunggubuyu*. Canberra: AIAS.
- Heath, J., A. Merlan and A. Rumsey, eds, 1982, *The languages of kinship in Aboriginal Australia*. Oceania Linguistic Monographs 24:182–201. The University of Sydney.
- Hopper, P.J. and S.A. Thomson, 1980, Transitivity in grammar and discourse. *Language* 56:251–299.
- Hori, M., 1995, Subjectlessness and honorifics in Japanese: a case of textual construal. In Hasan and Fries, eds 1995:151–186.
- Huddleston, R.D. and O. Uren, 1981, Declarative, interrogative and imperative in French. In Halliday and Martin, eds 1981:237–256.
- Hudson, R.A., 1981, An 'Item-and-paradigm' approach to Beja syntax and morphology. In Halliday and Martin, eds 1981:271–309.
- Hyon, S., 1996, Genre in three traditions: implications for ESL. *TESOL Quarterly* 30(4):693–722.

- Iedema, R., 1996, *Administration literacy (Write it right literacy in industry research project - stage 3)*. Sydney: Metropolitan East Disadvantaged Schools Program.
- Institute for Aboriginal Development (IAD), 1979, *Pitjanjatjara grammatical notes*. Alice Springs: Institute for Aboriginal Development.
1992. *Pitjanjatjara/ Yankunytjatjara to English dictionary*. Alice Springs: Institute for Aboriginal Development.
- Jabangardi Poulson, C., 1988, The school curriculum I would like for my children. *Curriculum Perspectives* 8(2):68–69.
- Kaberry, P., 1939, *Aboriginal woman: sacred and profane*. London: Routledge.
- Kendon, A., 1988, *Sign languages of Central Australia: cultural, semiotic and communicative perspectives*. Cambridge: Cambridge University Press.
- Kilham, Christine A., 1977, *Thematic organisation of Wik-Munkan discourse*. Canberra: Pacific Linguistics.
- Kirke, B., 1984, *Wangka Kulintjaku (Talk so as to be understood)*. South Australian College of Advanced Education.
- Koch, H., 1997, Comparative linguistics and Australian prehistory. In McConvell and Evans, eds 1997:27–44.
- Labov, W., 1972, The transformation of experience in its social context. *Language in the Inner City* 354–396. Philadelphia: Pennsylvania University Press.
- Lakoff, G., 1987, *Women, fire and dangerous things: what categories reveal about the mind*. Chicago: University of Chicago Press.
- Langacker, R.W., 1987, *Foundations of cognitive grammar, vol. 1, theoretical perspectives*. Stanford: Stanford University Press.
- Layton, R., 1986, *Uluru: an Aboriginal history of Ayers Rock*. Canberra: Australian Institute for Aboriginal and Islander Studies.
- Lemke, J.L., 1984, *Semiotics and education*. Toronto: Toronto Semiotic Circle (=Monographs, Working Papers and Publications 2).
- 1987/99, Typology, topology, topography: genre semantics. MS published on <http://academic.brooklyn.cuny.edu/education/jlemke/papers/Genre-topology-revised.htm>.
- 1993, Discourse, dynamics and social change. In *Language as a Cultural Dynamic*, M.A.K Halliday, ed. Cultural Dynamics 6:1–2.
- Lester, Y., 1989, *History and the land: pages from an Aboriginal book*. Alice Springs: Institute for Aboriginal Development.
- 1993, *Yami: the autobiography of Yami Lester*. Alice Springs: Institute for Aboriginal Development.
- Lévi-Strauss, C., 1970–78, *Introduction to a science of mythology*, Volumes 1, 2 and 3. London: Jonathan Cape.
- Levy, S., 1999, Death by fire. *New Scientist* no 2184:38–43.

- Liberman, K., 1982, The organisation of talk in Aboriginal decision making. *Anthropological Forum*, V, 1:38–53. Perth: University of Western Australia.
- Longacre, R.E., 1964, *Grammar discovery procedures*. The Hague: Mouton.
- 1972, *Hierarchy and universality of discourse constituents in New Guinea languages: discussion*. Washington: Georgetown University Press.
- 1976, *An anatomy of speech genres*. Lisse: Peter de Ridder.
- McConvell, P., 1985, The origin of subsections in northern Australia. *Oceania* 56:1–33.
- 1997, Long lost relations: Pama-Nyungan and northern kinship. In McConvell and Evans, eds 1997:207–236.
- McConvell, P. and N. Evans, eds, 1997, *Archaeology and linguistics: Aboriginal Australia in a global perspective*. Oxford: Oxford University Press.
- McDonald, E., 1996, The ‘complement’ in Chinese grammar: a functional representation. In Hasan, Cloran and Butt, eds 1996:265–284.
- McGregor, W., 1989, Gooniyandi mother-in-law “language”: dialect, register and/or code? In U. Ammon, ed. *Status and function of languages and language varieties*. Berlin: Mouton de Gruyter.
- 1990, *A functional grammar of Gooniyandi*. Amsterdam: Benjamins (also as a PhD thesis, The University of Sydney, 1984).
- n.d., The discourse basis of ergative in Gooniyandi. MS.
- Macken-Horarik, M., 1996, Construing the invisible: specialised literacy practices in junior secondary English. PhD thesis, The University of Sydney.
- Maddock, K., 1972, *The Australian Aborigines: a portrait of their society*. Baltimore: Penguin.
- Malinowski, B., 1923/69, The problem of meaning in primitive languages. In C.K. Ogden and I.A. Richards, eds *The meaning of meaning*. London: Routledge & Kegan Paul.
- Mallory, J.P., 1989, *In search of the Indo-Europeans: language, archaeology and myth*. London: Thames & Hudson.
- Martin, J.R., 1981, Conjunction and continuity in Tagalog. In Halliday and Martin, eds 1981:310–336.
- 1983, Participant identification in English, Tagalog and Katé. *Australian Journal of Linguistics* 3(1): 1–72.
- 1988, Hypotactic recursive systems in English: toward a functional approach. In J. Benson and W. Greaves, eds *Systemic functional approaches to discourse: selected papers from the 12th International Systemics Workshop*, 240–270. Norwood, N.J.: Ablex.
- 1990, Interpersonal grammaticisation: mood and modality in Tagalog. *Phillipine Journal of Linguistics* 21(1):2–51.
- 1991, Language and control: fighting with words. In C. Walton and W. Eggington, eds *Language: maintenance, power and education in Australian Aboriginal contexts*, 12–43. Darwin: NTU Press.

- 1992, *English text*. Amsterdam: Benjamins.
- 1993, Clitics. In A. Gonzalez, ed. *Linguistics. Phillipine encyclopedia of the social science*, 237–240. Quezon City: Phillipine Social Science Council.
- 1995, Logical meaning, interdependency and the linking particle {-ng/na} in Tagalog. *Functions of Language* 2(2):189–228.
- 1996a, Metalinguistic diversity: the case from case. In Hasan, Butt and Cloran, eds 1996:323–372.
- 1996b, Types of structure: deconstructing notions of constituency in clause and text. In E. Hovy and D. Scott, eds *Burning issues in discourse: a multidisciplinary perspective*, 39–66. Heidelberg: Springer.
- 1996c, Transitivity in Tagalog: a functional interpretation of case. In M. Berry, C. Butler and R. Fawcett, eds *Meaning and form: systemic functional interpretations*, 299–226. Norwood, N.J.: Ablex.
- 1997, Linguistics and the consumer: the practice of theory. *Linguistics in Education* 9(4):409–446.
- 1999b, Beyond exchange: appraisal systems in English. In S. Hunston and G. Thompson, eds *Evaluation in text*, 142–175. Oxford: Oxford University Press.
- in press, Metafunctional profile: Tagalog. In Caffarel and Martin, eds.
- Martin, J.R. and C.M.I.M. Matthiessen, 1991, Systemic typology and topology. In F. Christie, ed. *Social processes in education*, 345–383. Darwin: Northern Territory University.
- Martin, J.R. and P. Peters, 1985, On the analysis of exposition. In R. Hasan, ed. *Discourse on discourse (Workshop reports from the Macquarie workshop on discourse analysis)*, Applied Linguistics Association of Australia, Occasional Papers 7, 61–62.
- Martin J.R. and R. Veel, eds., 1998, *Reading science: critical and functional perspectives on discourses of science*. New York: Routledge.
- Martinec, R., 1995, Hierarchy of rhythm in English speech. PhD thesis, The University of Sydney.
- Marx, K., 1970, *Capital, vol. 1*. London: Dent.
- Matthews, W. K., 1953, The ergative construction in modern Indo-Aryan. *Lingua* 3:391–406.
- Matthiessen, C.M.I.M., 1988, Representational issues in systemic functional linguistics. In J. Benson and W. Greaves, eds *Systemic functional approaches to discourse*, 136–175. Norwood: Ablex.
- 1991a, Resources in English for organizing and expressing time. MS.
- 1991b, Language on language: the grammar of semiosis. *Social Semiotics* 1(2): 69–111.
- 1995, *Lexicogrammatical cartography*. Tokyo: International Language Science Publishers.
- 1998, Construing processes of consciousness: from the commonsense model to the uncommonsense model of cognitive science. In J.R. Martin and R. Veel, eds *Reading*

science: critical and functional perspectives on discourses of science, 327–356. London: Routledge.

Matthiessen, C.M.I.M. and C. Nesbitt, 1996, On the idea of theory neutral descriptions. In Hasan, Cloran and Butt, eds 1996:39–84.

Mellars, P. and C. Stringer, eds, 1992, *The human revolution: behavioural and biological perspectives on the origins of modern humans*. Edinburgh: Edinburgh University Press.

Merlan, F., 1994, *A grammar of Wardaman*. Berlin: Mouton de Gruyter.

Mescaninov, I. I., 1949, *Glagol (The verb)*. Moscow and Leningrad: USSR Academy of Sciences.

Miller, G., 1999, Pleistocene extinction of *Genyornis newtoni*: human impact on Australian megafauna. *Science* 283:205.

Miller, W., 1971, Dialect differentiation in Western Desert language. *Anthropological Forum* 3:61–78.

Mühläusler, P., 1976, Growth and structure of the lexicon of New Guinea Pidgin. PhD thesis, Research School of Pacific and Asian Studies, The Australian National University.

Mühläusler, P. and R. Harre, 1990, *Pronouns and people: the linguistic construction of social and personal identity*. Oxford: Blackwell.

Myers, F., 1986, *Pintupi country, Pintupi self*. Canberra: Australian Institute of Aboriginal Studies.

Nakata, M., 1999, History, cultural diversity and English language teaching. In P. Wignell, ed. 1999:5–22.

Nesbitt, C. and G. Plum, 1988, Probabilities in a systemic-functional grammar: the clause complex in English. In R.P. Fawcett and D. Young, eds *New developments in system linguistics: vol. 2: theory and application*, 6–38. London: Pinter.

Nganyintja and D. Rose, 1991, *Tawarra: a proposal for secondary education on the Anangu Pitjantjatjara lands*. Mimeo, available from D. Rose.

Nichols, J., 1997, Sprung from two common sources: Sahul as a linguistic area. In McConvell and Evans, eds 1997:135–168.

O'Grady, G. N., 1966, Proto-Ngayarda phonology. *Oceanic Linguistics* 5:71–130.

1979, Preliminaries to a proto nuclear Pama-Nyungan stem list. In S. Wurm, ed. *Australian linguistic studies*, 107–139. Canberra: Pacific Linguistics.

O'Grady, G.N. and S. Fitzgerald, 1997, Cognate search in the Pama-Nyungan language family. In McConvell and Evans, eds 1997:341–355.

O'Grady, G.N., S. Wurm and K. Hale, 1966, *Aboriginal languages of Australia (a preliminary classification)*. Victoria B.C.: University of Victoria.

Painter, C., 1984, *Into the mother tongue*. Geelong: Deakin University Press.

1996, The development of language as a resource for thinking: a linguistic view of learning. In R. Hasan and G. Williams, eds *Literacy in society*, 50–85. London: Longman.

- Peterson, N., 1976, *Tribes and boundaries in Australia*. Canberra: AIAS.
- Pike, K.L., 1982, *Linguistic concepts: an introduction to tagmemics*. Lincoln: University of Nebraska Press.
- 1983, Phonological hierarchy in a four-cell tagmemic representation from poem to phoneme class. In K.L. Pike and E.G. Pike 1983:74–103.
- Prakasam, V., in press, Metafunctional profile: Telegu. In Caffarel and Martin, eds.
- Roberts, J., 1988, Switch-reference in Papuan languages: a syntactic or extra-syntactic device? *Australian Journal of Linguistics* 8:75–117.
- Rose, D., 1990, “First-language enrichment programs” or “intensive exposure to the second language”. MS.
- 1991, Kipara: the origin of fire. BA Hons thesis, Department of Communications, University of Technology Sydney.
- 1992, Protection, self-determination and language learning in Aboriginal early childhood education: review of Aboriginal language education policy statements. *Education Australia* Spring 1992:34–35.
- 1993, On becoming: the grammar of causality in Pitjantjatjara and English. In M.A.K. Halliday, ed. *Cultural dynamics VI*, 1-2. 42–83. Leiden, Netherlands: E.J. Brill.
- 1996, Pitjantjatjara processes: an Australian grammar of experience. In Hasan, Cloran and Butt, eds 1996:287–322.
- 1997, Science, technology and technical literacies. In Christie and Martin, eds 1997:40–72.
- 1998, Science discourse and industrial hierarchy. In Martin and Veel, eds 1998:236–265.
- 1999, Culture, competence and schooling: approaches to literacy teaching in indigenous school education. In F. Christie, ed. *Pedagogy and the shaping of consciousness: linguistic and social processes*, 217–245. London: Cassell.
- in press, Pitjantjatjara: a metafunctional profile. In Caffarel and Martin, eds.
- Rose, D., B. Gray and W. Cowey, 1999, Scaffolding reading and writing for indigenous children in school. In Wignell, ed. 1999:23–60.
- Rose, D., D. McInnes and D. Korner, 1992, *Write it right: scientific literacy in industry*. Sydney: Disadvantaged Schools Program, NSW Dept. of Education.
- Rothery, J., 1990, Story writing in primary school: assessing narrative type genres. PhD thesis, The University of Sydney.
- Ruhlen, M., 1991, *A guide to the world's languages: vol. 1: classification*. London: Edward Arnold.
- 1994, *On the origin of languages: studies in linguistic taxonomy*. Stanford: Stanford University Press.
- Rumsey, A., 1982, Gun-gunma: an Australian Aboriginal avoidance language and its social functions. In S.M. Lamb and E.D. Mitchell, eds *Sprung from some common source: investigations into the pre-history of languages*, 160–181. Stanford: Stanford University Press.

- 1990, Wording, meaning and linguistic ideology. *American Anthropologist* 92(2):346–361.
- Sands, K., 1996, *The ergative in proto-Australian*. Lincom Studies in Australian Languages. R.M.W. Dixon, ed. Munich: Lincom Europa.
- Scheffler, H., 1981, *Australian kin classification*. Cambridge: Cambridge University Press.
- Shephard, M., 1995, *The Great Victoria desert*. Sydney: Reed Books.
- Shore, S., 1992, Aspects of a systemic functional grammar of Finnish. PhD thesis, Sydney: Macquarie University.
- 1996, Process types in Finnish: implicate order, covert categories and prototypes. In Hasan, Cloran and Butt, eds 1996:237–264.
- Silverstein, M., 1976, Hierarchy of features and ergativity. In R.M.W. Dixon, ed. *Grammatical categories in Australian languages*, 112–171. Canberra: AIAS.
- Stanner, W.E.H., 1937, Aboriginal modes of address and reference in the north-west of the Northern Territory. *Oceania* 7:300–315.
- 1966, *On Aboriginal religion*. Oceania Monograph 11. Sydney: The University of Sydney.
- Steiner, E. and W. Ramm, 1995, On theme as a grammatical notion for German. *Functions of Language* 2(1):57–63.
- Steiner, E. and E. Teich, in press, German: a metafunctional profile. In Caffarel and Martin, eds.
- Strehlow, C., 1947, *Aranda traditions*. Melbourne: Melbourne University Press.
- Stringer, C. and R. McKie, 1996, *African exodus*. London: Pimlico.
- Sutton, P., 1982, Personal power, kin classifications and etiquette in Aboriginal Australia. In Heath, Merlan and Rumsey, eds 1982:182–200.
- Teruya, K., in press, Metafunctional profile of the grammar of modern Japanese. In Caffarel and Martin, eds.
- Thai, Min Duc, in press, A metafunctional profile of Vietnamese grammar. In Caffarel and Martin, eds.
- Thibault, P., 1987, An interview with Michael Halliday. In R. Steele and T. Threadgold, eds *Language topics: essays in honour of Michael Halliday*, vol 2, 599–627. Amsterdam: Benjamins.
- Thomson, E., 1994, Thematic development in *Momotaroo*: a Japanese fairy tale. Paper presented at the *International systemic functional linguistics conference 23*, University of Technology, Sydney.
- Tindale, N.B., 1936, Legend of the Wati Kutjara, Warburton Range, Western Australia. *Oceania* VII(2):481–485.
- 1972, The Pitjandjara. In M.G. Bicchieri, ed. *Hunters and gatherers today*, 217–268. New York: Holt, Rinehart & Winston.
- Tonkinson, R., 1974, *The Jigalong mob: Aboriginal victors of the desert crusade*. Menlo Pk, Cal.: Cummings.

- 1978, *The Mardudjara Aborigines: living the dream in Australia's desert*. New York: Holt, Rinehart & Winston.
- Trudinger, R.M., 1943, Grammar of the Pitjantjatjara dialect, Central Australia. *Oceania* 13(3):205–223.
- Van Leeuwen, T., 1982, Professional speech: accentual and junctural style in radio announcing. MA Hons thesis, School of English and Linguistics, Macquarie University.
- 1985a, Persuasive speech: the intonation of the live radio commercial. *Australian Journal of Communication* No. 7:25–34.
- 1993, Rhythm and social context: accent and juncture in the speech of professional radio announcers. In P. Tench, ed. *Systemic phonology*, 231–262. London: Pinter.
- Van Valin, R., 1993, *Advances in role and reference grammar*. Amsterdam: Benjamins.
- 1997, A synopsis of role and reference grammar. In S.K. Verma and V. Prakasam, eds *New horizons in functional linguistics*, 103–296. Hyderabad: Booklinks.
- Ventola, E., 1989, Problems of modelling and applied issues within the framework of genre. *Word*, 40(1–2):129–161. (*Systems, structure and discourse: selected papers from the Fifteenth International Systemic Congress*).
- Veth, P., 1996, Language on the move. Paper presented at the Third Australian Linguistic Institute Workshop, 1996 *Where did the Western Desert language come from?* The Australian National University, Canberra.
- von Sturmer, J., 1988, *Talking with Aborigines*. Canberra: AIAS.
- Vygotsky, L., 1986, *Thought and language*. Cambridge, Mass: MIT Press.
- Walsh, M., 1997a, *Cross cultural communication problems in Aboriginal Australia*. North Australian Research Unit, Discussion Paper No 7, 1997.
- 1997b, How many Australian languages were there? In D. Tryon and M. Walsh, eds *Boundary rider: essays in honour of Geoffrey O'Grady*, 393–412. Canberra: Pacific Linguistics.
- 1999, Indigenous grammatical traditions in Aboriginal Australia. In H. Kniffa, ed. *Indigenous grammar in culture-contrastive perspectives*. Berlin: Mouton de Gruyter.
- Weber, M., 1968, *Economy and society*. New York: Bedminster Press.
- Whallon, R., 1992, Elements of cultural change in the Later Palaeolithic. In Mellars and Stringer, eds. 1992:433–454
- Whorf, B.L., 1938, Some verbal categories of Hopi. *Language* 14:275–286. (Reprinted in J.B. Carroll, ed. 1956, *Language, thought and reality: selected writing of Benjamin Lee Whorf*. Cambridge Mass: MIT Press).
- 1950, An American Indian model of the universe. *International Journal of American Linguistics* 16:67–72. (Reprinted in J.B. Carroll, ed. 1956, *Language, thought and reality: selected writing of Benjamin Lee Whorf*. Cambridge Mass: MIT Press).
- 1956, The relation of habitual thought and behaviour to language. In L. Spier, ed. *Language, culture and personality*, 134–159. Menasha, Wis.: Sapir Memorial

- Publication Fund. (Reprinted in J.B. Carroll, ed. 1956, *Language, thought and reality: selected writing of Benjamin Lee Whorf*. Cambridge Mass: MIT Press).
- Wierzbicka, A., 1972, *Semantic primitives*. Frankfurt: Athenaum Verlag.
- 1991, *Cross-cultural pragmatics: the semantics of social interaction*. Berlin: Mouton de Gruyter.
- Wignell, P., 1997, Making the abstract technical: on the evolution of the discourse of social science. PhD thesis, The University of Sydney.
- Wignell, P., ed., 1999, *Double power: English literacy and indigenous education*. Melbourne: Languages Australia.
- Woodbury, A.C., 1986, Interactions of tense and evidentiality: a study of Sherpa and English. In Chafe and Nichols, eds 1986:188–202.
- Wurm, S.A., 1971, Classification of Australian languages, including Tasmanian. In T.A. Sebeok, ed. *Current trends in linguistics*, 721–778. Mouton: The Hague.
- Wurm, S.A., ed., 1975, *Papuan languages and the New Guinea linguistic scene*. Canberra: Pacific Linguistics.